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A PARENT EDUCATION APPROACH TO PROVISION OF EARLY STIMULATION
FOR THE CULTURALLY DISADVANTAGED. FINAL REPORT.

BY- GORDON, IRA J.

FLORIDA UNIV., GAINESVILLE, COLL. OF EDUCATION

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REACTION INVENTORY, HOW I SEE MYSELF SCALE,

AN INTERVENTION PILOT PROGRAM WAS DEVELOPED TO PROVIDE
DISADVANTAGED INFANTS WITH STIMULATING EXPERIENCES TO HELP
THEM ACHIEVE HIGHER LEVELS OF INTELLECTUAL DEVELOPMENT THAN
MIGHT NORMALLY BE EXPECTED IN CHILDREN FROM DEPRIVED HOMES.
FIFTEEN DISADVANTAGED WOMEN TRAINED AS "PARENT EDUCATORS"
WENT INTO 100 HOMES ONCE A WEEK FOR 40 WEEKS AND TAUGHT
MOTHERS A SERIES OF PERCEPTUAL, MOTOR, AUDITORY, TACTILE, AND
KINESTHETIC EXERCISES WHICH THE MOTHER WAS TO INTRODUCE TO
HER INFANT. IT WAS ALSO HOPED THAT PARTICIPATION IN THE
PROJECT WOULD INCREASE THE MOTHER'S FEELINGS OF COMPETENCE
AND SELF-WORTH. THE EXPERIMENTAL INFANTS WERE TESTED AT 6
MONTHS ON DIFFERENT DEVELOPMENTAL TESTS AS WERE 25 INFANTS IN
A MATCHED CONTROL GROUP. A SECOND CONTROL GROUP OF 25 INFANTS
WAS TESTED AS THEY REACHED 1 YEAR OF AGE. RESULTS OF THE
GROUPS WERE COMPARED TO MEASURE THE EFFECTIVENESS OF THE
INTERVENTION PROGRAM. IN MOST INSTANCES, THE EXPERIMENTAL
GROUP SHOWED GREATER DEVELOPMENT SUGGESTING THE VALUE OF
EARLY STIMULATION FOR THE CULTURALLY DISADVANTAGED. PARENT
EDUCATORS EXHIBITED SELF-GROWTH AND RESPONSIBLY FILLED THEIR
ASSIGNMENTS. MEASUREMENT OF THE MOTHERS' FEELINGS PROVED TO
BE A DIFFICULT TASK, WITH MEASURES STILL BEING DEVELOPED.
CONTINUED RESEARCH IS BEING DONE ON AN EXPANDED PARENT
EDUCATION PROJECT NOW IN OPERATION. (MS)

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EARLY STIMULATION FOR THE CULTURALLY DISADVANTAGED**

**A Project of the
Institute for Development of Human Resources
College of Education
University of Florida
Gainesville, Florida 32601**

Ira J. Gordon, Principal Investigator

**A Final Report to the Fund for the Advancement
of Education established by the Ford Foundation**

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PROBLEM

It has been demonstrated that deprived environmental situations, either in institutions or disadvantaged homes, lead to decrease in mental functioning. Further, it has been hypothesized that early experience is the most critical time for the development of intellectual structure. Just as psychiatry has indicated the role of early family experience in personality development, recent psychological theory and research indicate the critical role of early family experience in intellectual development. Research in the Soviet Union and in the Israeli Kibbutzim have demonstrated institutional models for the provision of early care which have implications for intellectual development. Research by Wayne Dennis in Lebanese orphanages has indicated that perceptual motor stimulation on a one-hour-a-week basis in infancy leads to the recovery of potential in such children.

There is, however, a paucity of data to indicate just how much and what types of help are effective in aiding growth and development. Bloom's organization of data suggests the worthwhileness of the effort; Piaget and Hunt provide the theoretical rationale; the empirical support is still lacking. Nevertheless, it seems feasible that selected experiences can be used with infants and toddlers to influence and modify their development.

In the American society the Soviet and Israeli models are not necessarily acceptable. With the American emphasis on family life, what is needed is an approach to deprived infants which maintains the family structure and yet provides experiences leading to the development of intellectual structure and adequate personality.

We see the home as the learning center. The problem is that the mother, in culturally disadvantaged homes, is ill-equipped to supply the type of stimulation that seems to be needed. Further, the home itself lacks the didactic materials that may serve as auto-instructional and practice devices for children. Such a simple object as a cradle gym, for example, is usually lacking.

In the deprived homes of north central Florida, where this project was carried on, there is usually more than one child below school age. Thus, educating the mother to provide stimulating experiences for the infant should have side effects upon the learning and development of other children in the home.

The purpose of this project was to investigate a way in which early intervention into the lives of babies might break the deprivation cycle. The project attempted to simultaneously raise the chances that the infant would reach a higher level of intellectual functioning and that the adult who mothered him would gain in competence and feelings of self-worth.

To achieve this purpose, the technique of using disadvantaged women to teach mothers how to stimulate their infants was developed. The task was to place a person in a home to work with and educate the mother. It is obvious that current staff levels of well-trained child psychologists and pre-school teachers cannot possibly cope with such an endeavor. We created a new role, "parent educator." The basic problem was to recruit, select and place people in this new role. Since it was important that they be acceptable to these mothers and able to communicate, recruitment was from lower class high school

graduates in the geographical region. It was believed that these people, with intensive training, could serve to educate mothers to carry out the kind of early stimulation now deemed useful. In turn, it was hoped that this would create new employment possibilities for these parent educators if it were demonstrated that such a program led to improved development. The problem may be summarized in several questions:

1. Can parent educators be recruited, selected, trained, and placed in the homes?
2. Will they be accepted by mothers and be able to sustain a long term relationship?
3. Will this influence the cognitive development of the child?
4. Can the results be disseminated so that a new role is created and a new program advanced?

This report contains our efforts and findings to date in relation to the above questions.

PROCEDURES

Planning and Organization

The program was located at the University of Florida and initially involved three counties: Alachua, Levy, and Dixie Counties, Florida. The first planning session involved working with the Obstetrics and Gynecology Department of the College of Medicine and the Obstetrical Nursing Department of the School of Nursing, both responsible for activities on the obstetrics ward of the Shands Teaching Hospital. Procedures were developed for initial screening of babies at delivery

by the obstetrician and the obstetric nurse in charge, and for notification of our project personnel of babies felt to be qualified to be in the sample (see description of sample, page 17).

Procedures were developed with the administrator of the Teaching Hospital and the hospital librarian for identifying the financial status of the family to be sure that they fit the criterion of "culturally disadvantaged." Since the hospital employed an "ability to pay" code, those mothers who fell into certain coding categories were deemed to fit the criterion. Thus, the Teaching Hospital personnel served to screen babies on the basis of finances and health. In particular, Dr. Harry Prystowsky, Chairman of the Obstetrics and Gynecology Department was instrumental in securing the cooperation of Teaching Hospital personnel.

A meeting was held with the Public Health officers and nurses representing the three counties to inform them of our plans, to be sure that services would not be duplicated, and to elicit their support and acceptance of the program. The Public Health people made several suggestions about ways we might approach the families, and further agreed to indicate for us people that they felt might be able to be employed as our parent educators. In turn, the educational boundaries of the project were clarified and a plan devised so that Public Health personnel would be notified when our people discovered illness in the family requiring their services.

A third meeting was held with the Department of Clinical Psychology of the College of Health Related Services to explain the service and research design and to elicit their comments as well

as to encourage them to participate in the work. As an outgrowth of this meeting, the half-time graduate assistant (Mr. Larry Bilker) who was responsible for some of the statistical and measurement activities was recruited. He was completing his doctoral program in child clinical psychology and joined the project. Dr. Mary McCaulley, the psychologist assigned to the Obstetrics Department, agreed to assist in training the parent educators in interview techniques and in handling some of the relationships on the Obstetrics ward.

The basic question of the development of activities to be used by the parent educators with the mothers was also dealt with during the planning phase which began on June 15, 1966. Prior to submission of the proposal, the literature had been researched to locate possible ideas and frameworks for the organization of activities, but a more careful search of the literature was begun on June 15 by Miss Virginia Harrell, a clinical child psychologist, under the direction of the principal investigator. By the end of August, the initial series of activities had been fairly well organized and sequenced (see Appendix A). Recruitment of parent educators began toward the end of August, 1966, and Miss Carol Bradshaw, Assistant Professor of Pediatric Nursing, took major responsibility for this activity. The nucleus of the staff had been formed (Miss Harrell, Mr. Bilker, Miss Bradshaw, Mr. Lally and Dr. Gordon). The staff tried to develop a set of criteria for selection of parent educators and weighed such questions as age, marital status, experience with babies, intellectual capacity, personality, reading and writing skill, and so forth. It was not clear what the major criteria should have been and the ones

basically used were: experience with babies, ability to communicate verbally in an interview, ability to comprehend a short written description of the project, and an expressed interest in the basic aim of the work. The major recruiting technique was word of mouth. Head Start personnel, the one Negro school psychologist, (Miss Susie May White), Negro ministers, Salvation Army people, Public Health nurses were all informed about our needs. The Florida State Employment Service not only provided interview space and its record keeping facilities but also engaged in recruitment. Approximately 75 women were interviewed. The staff selected the original 15 people, 12 Negro and 3 white, to be trained and used as parent educators. Table 1 presents some background information on the parent educators. We also secured some additional information from their references so that we could better understand and work with them rather than as material to be used in the selection process itself. Since these data are confidential, they are not included in this report. They do indicate, however, that basically the parent educators had such previous job experience as hairdressers, domestic workers, Head Start workers, OEO work-study program employment, and that their husbands were basically engaged in unskilled and semi-skilled occupations. Although the fact of high school graduation set the Negro parent educator to some degree apart from her expected clientele, the general work background and living conditions resembled those of the mothers with whom we expected her to work. The white parent educators were less well educated, older and with generally more work experience. Recruitment of white personnel was a good deal more difficult with far fewer applicants and thus, far less choice.

TABLE I. THE PARENT EDUCATORS

No.	Race	Educ.	Marital Status	# Children	Recruiting Source
1	N	12	M	2	School Counselor
2	N	12	S	0	School Counselor
3	N	JC	S	1	Head Start
4	N	12	M	3	Head Start
5	N	12	M	6	Head Start
6	N	12	M	4	PHN
7	N	12	M	1	Head Start
8	N	2-Coll.	S	1	Head Start
9	N	11	M	2	Head Start
10	N	JC	S	1	PH nurse
11	N	3 $\frac{1}{2}$ -Coll.	S	1	Head Start
12	N	12	M	2	Home Dem. Agent
13	W	9	M	4	Salvation Army
14	W	12	M	3	Another par. ed.
15	W	8	M	7	Informal

Training Program for the Parent Educators

Intensive Phase

The initial training phase consisted of a five-week intensive training program conducted by an interdisciplinary team drawn from education, child psychology, social work, and nursing (See Table 2). The focus was the exploration of ways of working with mothers so that a mother would understand: (1) how to work with her infant and toddler, (2) why it was important for such activities to be provided and (3) why it was imperative that the mother provide these activities herself rather than depending on the Parent Educator to teach her child for her.

We believed it was necessary to insure that the trainee realized that her opinions, ideas, and attitudes were important to the success of the program. Each part of training, whether lecture, large group discussion, small group discussion, role playing, field trips to homes and hospital wards, interview training, observation practice, or work with dolls and/or babies and mothers was based on this fundamental belief. We believed this attitude of open two-way communication was essential both for the prospective Parent Educator and the training staff.

We believed that the trainees should be treated as professionals and held responsible for different areas covered during the training period. Therefore, they were neither coddled nor checked upon continuously. They responded to this treatment and enjoyed the responsibility given to them. This attitude has continued through to field work with the result that home visits are thought of as a professional

TABLE 2. TRAINING AND RESEARCH STAFF

Name	Description	Dates
Virginia Aspy	RN Nursing	September 5, 1966 - May 30, 1967
Larry Bliker	MA Psychology	August 15, 1966 - May 30, 1967
Carol Bradshaw	Med., RN Nursing	June 15, 1966 - September 30, 1967
Shirley Clarkson	RN Nursing	
Tina Cohen	Social Work	September 5, 1966 - October 30, 1966
Virginia Harrell	MA Psychology	June 1, 1966 - August 15, 1966
Ira J. Gordon	Ed.D. Educational Psychology	June 1, 1966 - September 30, 1967
J. Ronald Lilly	M. Ed. Educational Psychology	September 1, 1966 - September 30, 1967
Margaret Lay	MA Educational Psychology	September 5, 1966 - June 30, 1967
Phyllis Spear	RN Nursing	June 1, 1966 - September 30, 1967
Gary Veld	M. Ed. Educational Psychology	July 1, 1966 - September 30, 1967

responsibility rather than as just a job.

Each day of training period (beginning September 5, 1966) was filled with problem-solving activity. The topics discussed were problems of basic concern to both staff and trainees, usually derived from questions by the trainees during a role playing session or some other practice exercise.

The most effective training procedures were operations as close to reality as possible. Lectures were brief and usually served as explanatory beginnings of activity exercises. Motion pictures were used for training in objectivity of observation. The ability to show a scene over and over again had obvious advantages for this type of training. We found role playing situations most useful to teach the series materials, interview techniques, and observation practices. The use of strange (to the trainers) mothers and babies to act as subjects was of great help because it approached the real life situation more closely. It was during these role playing sessions that we discovered many of the hazards which would have to be overcome. Some of them were:

(1) living and working conditions that seemed to prohibit productive training of infants, (2) special safety considerations in these homes, such as splintered floors, broken glass in the yard, undesirable animals present, (3) superstition and voo-doo beliefs that were in direct conflict to our purposes, for example, the beliefs that a precocious child dies early, and that it is dangerous for a child to look in a mirror before his first birthday.

As training progressed, the trainees became more critical of their own and other trainees' skills. They were by far their hardest judges. For the most part, criticism was constructive and helped raise the level

of trainee competence. Awareness of personality factors and habits which might block effective functioning were brought to light in group dynamics type sessions. These sessions enabled trainees and trainers to see the roles they played in discussion groups. The increased awareness of an individual's impact on the total group helped to make training sessions run smoother and enabled more people to voice their ideas.

The bulk of the time spent in training was used to make all members of the team comfortable with and knowledgeable of all the exercises to be presented to the mother. Our aim was a complete understanding and functional knowledge of the series materials so that any question asked by the mother could be answered easily. This would also enable the Parent Educator to spend her time in the home relating to the mother and observing the situation without worrying about her own grasp of the material. The following order of activities were pursued:

1. Each series of exercises explained and reasons were given for use.
2. Discussion sessions held until all initial problems were ironed out.
3. Demonstration of the exercises with a doll.
4. Practice with dolls by trainees in small groups. This usually brought more problems to light along with ideas for more efficient ways for presentation.
5. Discussion of the practice sessions.
6. Work with babies.
7. Final discussion session to clarify the new methods and means of presentation of the exercises which had evolved from the original thoughts, through practice, to their new form.

By the end of the intensive period, each Parent Educator knew every exercise to be used, the reasons for its selection as part of the series,

what it would do for the baby, and most important of all, how to teach mothers to teach their children the different exercises without conveying the idea that the mother was being "taught at" or that she didn't know how to take care of her baby.

During the last week of training the trainees were sent to the Shands Teaching Hospital to conduct initial interviews with new mothers. Immediately after the interview, the trainee reported to a small group of fellow trainees in one of the conference rooms in the hospital. These groups were used to relax the trainees before and after their initial contacts with the mothers.

Field work started gradually. Each training staff member was assigned three trainees, now called Parent Educators, to supervise. For the first week of field work the Parent Educator was in the field in the morning and consulted with her assigned supervisor in the afternoon. These consultations dealt with questions by the Parent Educator about problems. Supervisors did not give solutions to the problems, but explored with the Parent Educator different ways of attack. Role reversal situations were used in which the Parent Educator tried to put herself in the shoes of the mother she had just visited. Intensive training terminated with a Parent Educator and supervisor visit to each assigned home. This visit was used as a final aid in observation techniques (the supervisor and Parent Educator filling out forms together) and as a means by which the supervisor could get better acquainted with his Parent Educator's mothers.

In-Service Phase

Each Friday was set aside for in-service training. Individual conferences were held, specific problems discussed and brought to solution.

Study in pertinent subject areas (child development, interpersonal relations, disadvantaged families and related community functions) was pursued in large groups, small groups and by individuals. Visits were made to related projects, day care centers, nurseries, pre-schools and the like. There were guest lectures from staff members of similar studies at different universities. Consultants were used to help with particular problems, ranging from a more scientific means of observing speech patterns to the way a mother can find financial aid for her crippled child. Some of the consultants were:

1. Dr. E.A. Ringwall from the State University of New York at Buffalo, who aided us by helping make our exercises and approach more sensitive to language learning in young children.
2. Mrs. Pearl Drane, Associate Director of CDGM, Jackson, Mississippi, who assisted us in getting our parents involved in our program.
3. Dr. Donald J. Stedman of Duke University, Durham, N. who helped us in research design and in series material.
4. Dr. Judith Phillips of Peabody College, Nashville, Tenn., who aided us in our home visitation program and control of contamination problems.
5. Mrs. Kitty Morozoff, a local VISTA worker, who lent us her insights into the problems of poverty.
6. Mrs. Glenn Hoffman of the Bell Nursery School, who contributed her expertise to aid us in our understanding of children. (A local Nursery School)
7. Mrs. Leveda Brown of the Florida Department of Public Welfare, who gave us a better understanding of the rights of individuals to public welfare.
8. Dr. Madelyn Kafoglis of Community Action in Alachua County, who made us aware of what was already being done for the people of our community.
9. Mrs. Floreine Marshall of the County Health Department, who left us with much needed information about Public Health rules and services.

10. Mrs. Gladys Wyman of the Crippled Children's Commission, whose description of the services of the Commission led to the assistance of two of our children.

Many of the Friday sessions are spent in explanation and discussion of new research materials to be used. Since the Parent Educators have been in the field, no fewer than eight such tools have been created and administered (see Appendix A).

Requests by the Parent Educators for work in areas that were of interest were also considered and carried out. Some of these were:

1. Building a vocabulary of words essential to the project so that it is easier to speak to groups when called upon to do so.
2. Recording discussion topics and use these tapes to help clarify ideas.
3. Using interesting articles from magazines and/or papers concerning early childhood and discuss them with the group.
4. Compiling a short statement in everyday language of the aims and goals of the project.
5. Lecturing to interested groups by different Parent Educators on subjects related to the project. (More of a chance for public speaking.)
6. Testing the racial awareness of children at six months of age and publishing the findings.

Motion pictures were found to be effective when selected with a specific purpose in mind and discussed during or after their showing. The following list may be an aid to future projects similar in purpose to ours:

1. Portrait of a Disadvantaged Child. Modern Talking Picture Service, Inc., Atlanta, Georgia. Film # 9016.
2. A Chance at the Beginning. Modern Talking Picture Service, Inc., Atlanta, Georgia. Film # 9021.
3. Children Without. Modern Talking Picture Service, Inc., Atlanta, Georgia. Film # 9015.

4. A Pre-Kindergarten Program. Modern Talking Picture Service, Inc., Atlanta, Georgia. Film # 9011.
5. My Own Yard to Play In. Modern Talking Picture Service, Inc., Atlanta, Georgia. Film # 9014.
6. Palmer St. Modern Talking Picture Service, Inc., Atlanta, Georgia, Film #9013.
7. Vassar College Nursery School. Modern Talking Picture Service, Inc., Atlanta, Georgia.
8. Angry boy. Mental Health Film Board and State of Michigan Dept. of Mental Health. Black and white. Sound. 33 minutes running time. 16 mm. 1951.
9. Children's emotions. McGraw-Hill Book Company. Black and white. Sound. 22 minutes running time. 16 mm. 1950.
10. Children's play. McGraw-Hill Book Company. Black and white. Sound. 27 minutes running time. 16 mm. 1956.
11. Common fallacies about group differences. McGraw-Hill Book Company. Black and white. Sound, 15 minutes running time. 16 mm. 1957.
12. Development of individual differences. McGraw-Hill Book Company. Black and white. Sound. 13 minutes running time. 16 mm. 1957.
13. From sociable six to noisy nine. McGraw-Hill Book Company. Black and white. Sound. 21 minutes running time. 16 mm. 1954.
14. Frustrating fours and fascinating fives. McGraw-Hill Book Company. Black and white. Sound. 22 minutes running time. 16 mm. 1952.
15. Learning discrimination and skills. McGraw-Hill Book Company. Black and white. Sound. 10 minutes running time. 16 mm. 1956.
16. Learning to understand children. McGraw-Hill Book Company. Black and white. Sound. 2 reels. 44 minutes total
17. running time. 16 mm. 1947.
18. Over-dependency. McGraw-Hill Book Company. Black and white. Sound. 32 minutes running time. 16 mm. 1948. (Mental Mechanisms Series, Part 3).

19. Parents are people too. McGraw-Hill Book Company. Black and white. Sound. 15 minutes running time. 16 mm. 1950.

20. Picture in your mind. McGraw-Hill Book Company. Color. Sound. 16 minutes running time. 16 mm.

Through animated symbolism, this film traces the background and growth of racial prejudice.

21. Preface to a life. United World. Black and white. Sound. 29 minutes running time. 16 mm. 1950.

Influence parents have on a child's developing personality is shown.

22. Terrible twos and trusting threes. McGraw-Hill Book Company. Black and white. Sound. 20 minutes running time. 16 mm. 1950.

Film presents a close examination of the growing years between two and four.

THE PATIENT EDUCATION ACTIVITIES

Sample

Table 3 presents the birth pattern. It will be noted that a substantial number of these babies did not arrive at their first birthday by the termination of the grant from the Foundation. However, subsequent financing from the Department of Health, Education and Welfare allows us to continue (see Appendix A). We had originally been planning to work in Alachua, Levy and Dixie counties but the birth pattern of the Teaching Hospital did not conform to any such neat geographical boundary. Table 4 indicates the actual distribution of the total population and Figure 1, a map of Florida, indicates the geographical range. The figures on Table 5 represent the families still on the project as of October 23, 1967.

Mothers and their infants were identified at the birth of the latter by the Obstetrics staff at the Teaching Hospital of the J. Hillis Miller Health Center of the University of Florida. The criteria for selection, in addition to the economic code on the hospital admission form, were: single birth, no breech or Caesarian delivery, no complications to mother or infant, no evidence of mental retardation, and no evidence of mother's mental illness.

Assignment to experimental or control groups was based on randomization of geographic area to avoid contamination. Towns and their surrounding areas were randomly assigned as experimental or control towns then they were randomly assigned as Negro or Caucasian towns. A given town became experimental for one race and control for the other. Gainesville, which has a relatively

TABLE 3

Birth Pattern, Frequency, and Cumulative Frequency

Groups		1966						1967	Total
		June	July	Aug.	Sept	Oct	Nov	Dec Jan	
exp.	freq.	8	16	20	20	20	22	24 20	
	cum.	8	24	44	64	84	106	130 150	150
<hr/>									
control #1		freq.	2	6	4	2	2	4 6	
		cum.	2	8	12	14	16	20 26	26
<hr/>									
control #2		freq.	4	6	6	2	4	4 4	
		cum.	4	10	16	18	22	26 30	30
<hr/>									

TABLE 4
Number of Families by County

County	exp.	Control #1	Control #2
Alachua	131	14	8
Baker			1
Bradford	1	6	6
Clay			1
Columbia		2	5
Dixie			3
Gilchrist	5		
Levy	13	1	
Marion		3	2
Putnam			1
Taylor			1
Union			2
	<hr/>	<hr/>	<hr/>
	150	26	30

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Institute for Development of Human Resources
Parent Education--Infant Stimulation Project

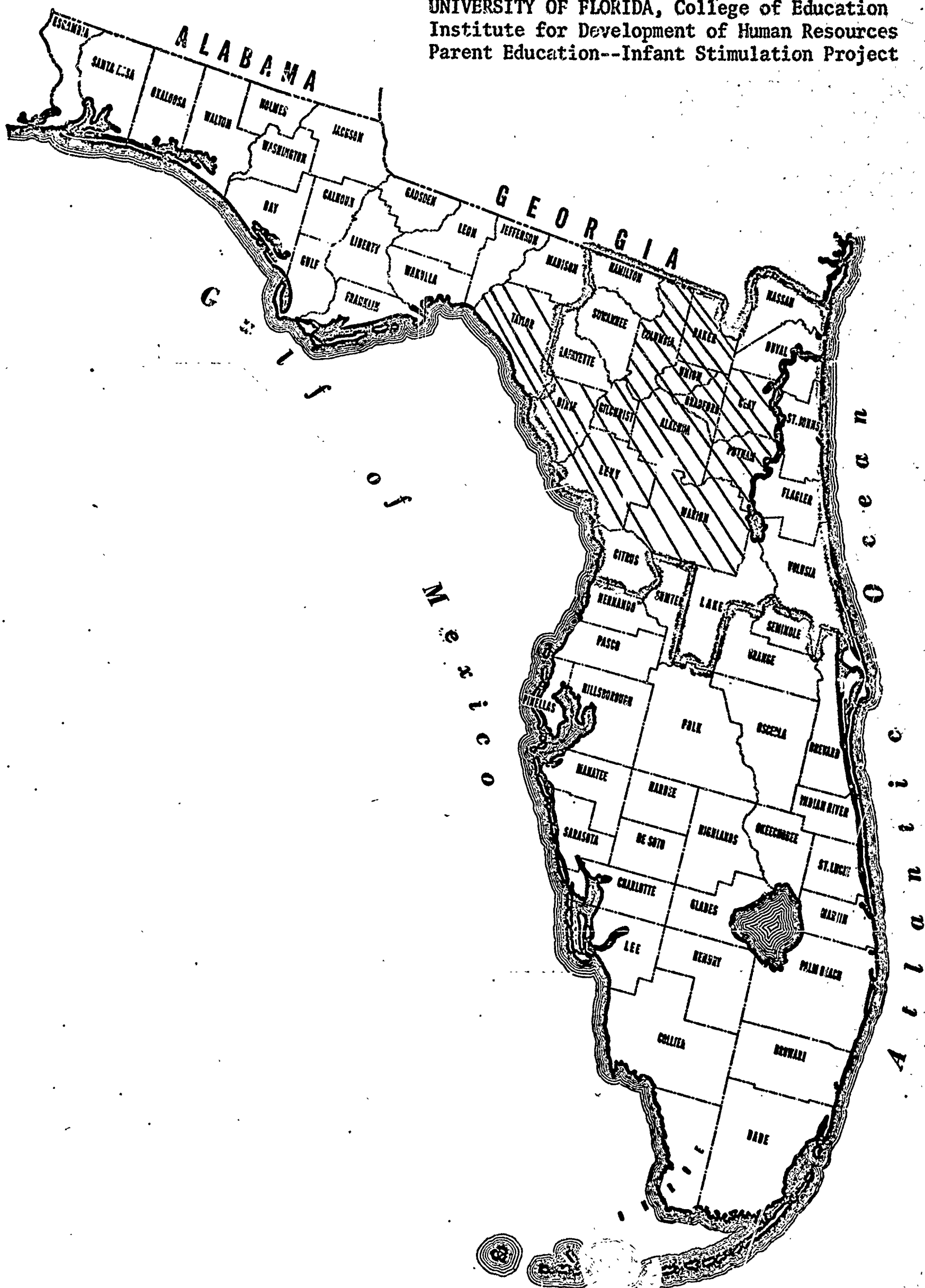


TABLE 5

Present Population (after attrition)**October 23, 1967**

Experimental:	90
Control # 1:	21
Control # 2:	30

large population, contains control and experimental subjects of the same race but in different areas (they are separated by at least four blocks). Thus, the risk of contamination was minimized.

Presentation to Mothers

The parent educators held interviews at the hospital with the mothers of babies who were born between October 15, 1966, and January 31, 1967. For those babies born before October 15, the six-week visit was the first contact. These interviews were designed to explain the program and gain the mothers' assent to visit the home. For those who were interviewed at the hospital, a second visit was made to the home at the six-week time. These mothers who were willing signed permission forms representing informed consent in keeping with National Institute of Health procedures. Instructional visits were begun on or about the time the infant was three months old.

Half the control population (C_1) were also contacted and invited to participate in a program for helping the University learn how babies grow. They were informed that they would be visited about once a month and that some testing of the baby's development would be made periodically. The remainder of the control population (C_2) was not solicited for active participation until the baby reached his 12th month birthday, at which time a parent educator visited the family and invited the mother to bring the baby in for testing.

Intervention Procedures: Series Material

The stimulation materials, developed into a booklet, became the basic training manual for the mothers. The series material was

designed to provide a basic guide for parent educators to follow in working with mothers in the home.

The basic project orientation represents an extension of Piagetian theory. Our belief is that the provision of experiences which require adaptation through accommodation will lead to modification of development and greater cognitive organization than what might be expected from purely "natural" or "spontaneous" growing-up in a culturally-deprived environment. The development of intellectual structure and self-esteem are functions of organism-environment transaction. Manipulation of the environment offers a way to modify development. Therefore, we selected or devised exercises which we assumed went beyond the evaluation of status and involved the introduction of instruction and experience.

We used extensively Uzgiris and Hunt (1966) in the compilation of the four series of exercises for stimulation of infants during the first year of life. We included only those tasks we deemed simplest to carry out and evaluate. We eliminated those requiring a sophisticated observer to assess accurately infant responses to the stimuli, because neither our parent educators nor the mothers would be able to determine "success." In addition, we selected only such tasks in which either no material objects were necessary or where such objects could be found in culturally disadvantaged homes, easily made or procured. The normative work of Gesell, Cattell, and Bayley were also used to clarify the order of presentation of stimuli and to provide some of the stimulation tasks. A survey of available Soviet literature also provided some instructional tasks.

We faced an apparent inconsistency between the theoretical position that instruction precedes development (Vygotsky, 1932), that function modifies structure, and the reliance on age-graded developmental norms as guides for task placement. Although the developmental norms often suggest an essentially maturational orientation, our view was that they represented, in conjunction with the Uzgiris and Hunt scale, the best data available for creation and placement of tasks and experiences.

When a sufficient number of activities were gleaned from the various sources, they were grouped into four series so that each infant might be occupied appropriately for about two months with each series. The materials were so organized that each item or exercise was introduced to the infant before the behavior should occur according to the norms of Bayley, Gesell, and Cattell. For instance, according to Cattell, the average baby can grasp a string at 7 months, so a string was introduced and the baby is encouraged to grasp it before the 7 months series.

Norms of motor development (Gesell and Amatruda, 1941) led to the following series arrangement which is being maintained; in series I, the infant is essentially prone or supine most of the time. In series II, the beginning of propped sitting occurs which allows for attention to an increased number of stimuli. In series III, the baby sits alone, perhaps leaning forward for support on his hands. In series IV, the baby begins to creep about.

The vocal imitation progression was from Uzgiris and Hunt (1966) with Gesell (1943) taken into consideration. The verbal stimulation exercises involve a change in speaking habits of the mother. We

felt, and our experience this past year has supported our impressions, that verbal stimulation would be an important phase of improving the mother-child transaction. The basic theoretical position which guided selection of activities is a synthesis of Bernstein (1960) and the empirical work of Hess et. al (1965) in which they stated that the language of the home structures the thought processes, and in turn, the behavior of the child, and the basic Piaget type task which was planned to lead to labeling, categorizing, classifying behavior as the youngster grew. We assumed that stimulation exercises could play a role in modifying maternal language behavior in the mother-infant transactional situation. We included instructions to call the baby by name and to describe objects, because it is in the area of descriptive adjectives and abstract terms that vocabularies are likely to be inferior. To some degree, the verbal elements in these series were the most crucial in our thinking. Auditory, tactile, visual, and kinesthetic inputs were provided in such a way that the infant received information through more than one channel at a time. We felt that the use of verbal cues accompanying other tasks would play a vital role in language development. The data (see Table 6) indicate that the verbal area is the most deficient. On the basis of our first six months of field work, we modified the series instructions to include more specific verbal cues for both mother and child. Accompanying this report is the revised booklet. In the results section, we will discuss changes between the original and revised series materials.

Intervention Procedures: Toys

The homes of our mothers and infants were often lacking in any materials which might delight and stimulate the child during all those long hours when he was left to his own amusement. Even such simple objects as rattles were often missing in these homes. We recognized early that no set of exercises in and of themselves, no matter how well executed by parent educator and mother, would be sufficient to overcome the lack of other sources of stimulation in the home. It should not be inferred that these homes were completely barren. Very often, particularly in the city area, television or radio was available and often on during the day. However, these particular mass media are not necessarily sources of stimulation to the infant. He cannot hold them close in view nor can he manipulate them or understand the verbal content just existing in the air. To partly overcome the deficit, part of the training program included teaching the mothers how to make simple toys and mobiles from objects readily at hand or very inexpensive to attain. Once the mother saw the object or learned how to make them, evidences of their use were subsequently seen by the parent educators. Included in the revised booklet are sets of instructions for the construction of such simple toys.

Intervention Procedures: magazines

Since the amount of reading material in these homes was virtually non-existent, subscriptions to Life and Ebony were purchased by the project so that the parent educator could carry a magazine into each home. Our purposes were threefold: first, it would simply be a small reinforcement to the mother for her participation. This reinforcement

was purposely kept small so that it would not constitute a bribe nor be of sufficient value to keep a mother in the project just for its extrinsic worth. We hoped the project would be intrinsically valuable and that the major reinforcement would be the satisfaction of the mother in relating to her infant and seeing the child make progress. The second purpose was to introduce picture and reading material so that these might become sources of stimulation to the mother and to the child. Later exercises in the series, for example, make use of magazine pictures in labeling and identification. The third purpose, particularly through the use of Ebony, was to enable the Negro mothers to see an image or model of successful Negro adults. We felt that the dynamics of identification and role modeling could be facilitated through such a device. The parent educators report that the mothers look forward to reception of the magazines. They are read by the older siblings as well as the adults in the home. They are used by the mothers to show pictures to the infant.

Intervention Procedures: Instructional Strategies

Our plan was that each parent educator would visit each mother at least one hour a week. The hour would be spent in working with the mother and teaching the mother activities to do with her infant. Along with this the parent educator would emphasize that these materials were not a rigid course of study and the mother would be taught to recognize the cues given by the infant that he had been satiated. The basic early technique was to use a doll. A parent educator would demonstrate on a doll and encourage the mother to copy her behavior. The doll was later dropped as too artificial and confusing.

At the first visit (3 months) the parent educator assessed what the child could do on the first series. The initial plan was then to introduce the child to two tasks that he was unable to do and to check the following week on his performance. As he succeeded in the tasks, the mother would then be taught two new activities.

In practice, this proved too rigid a schedule. The parent educator was encouraged to work with the mother in ways which fit the style of each, but to continue to move the mother along series by series. In practice, the once-a-week schedule could not always be followed. Very often more than one visit had to be made to the home to find the mother in, because appointments were not understood. Illness, and the variety of daily problems faced by our mothers often led to the loss of instructional time.

One of the concepts taught was that these activities were not lessons and that specific times of the day should not be allocated by the mother to "teaching" the child. We attempted to convey the concept that these were activities which could be engaged in at any time of the day when it seemed that both mother and child were relaxed enough to enjoy the transaction. This was not an easy concept for the mothers. Their days were extremely busy and they did not always see time for just engaging in these exercises.

Other Activities

A primary concern was to give the mothers a sense of involvement and participation. We felt that small group meetings might be a worthwhile approach since many of these families are far out in the rural area and quite isolated. It was our hope that they would

see themselves more related to the project if they had social and informal gatherings with other mothers. We made several efforts in this direction in the Gainesville area and in some of the small towns (Williston, Hawthorne). Some of the mothers became involved in various OEO-type projects in the region, but we were not successful in creating continuous groups connected to our project. They were not able to take over the program-planning and organization even with help, as we had hoped. Attendance was small, and we finally abandoned the effort.

PRELIMINARY RESULTS

The first question we asked ourselves was: can parent educators be recruited, selected, trained and placed in the homes? The answer to this question is quite clear, yes. Of the original 15 parent educators employed in August, 1966, 13 are still on the staff at this time. One white parent educator and one Negro parent educator were asked to resign although for quite different reasons. The white parent educator was essentially a middle class person with a heavy nursing background. She was neither able to operate in a nonauthoritarian fashion with her mothers nor was she able to relate in an egalitarian fashion with the other parent educators. She developed a series of symptoms, missed a number of meetings, and finally left the project on March 31, 1967. One Negro parent educator had a background of difficulty and was unable to accept the high degree of organization and personal responsibility required by the project. Although a variety of efforts were made to aid her including individual consultation, it was felt that she could not fulfill the role and left on April 30, 1967.

The simple answer, "yes," does not convey the variety of ways in which the parent educators grew throughout the year. Evidences were noted early in the training period. These were people with practically no experience in clerical types of tasks, yet the project involved a considerable amount of careful record keeping. Errors and lack of understanding were very frequent in the training and early field times. Errors still exist, but they are now well within the bounds

of control. Not only did the mothers have little sense of clock time, but the parent educators as well were not necessarily oriented to the notion of appointments and schedules based upon clock time. Now they can all maintain individual diaries, schedule appointments, be responsible for being places at the expected time. They have developed a quiet sense of pride in their skill.

The change in their language and concepts, although not neatly visible for statistical treatment, are quite clear to visitors to the project and to all the people concerned. Not only have the parent educators become more verbal as they have worked closely together, but also they have taken over and modeled on the behavior of the university graduate students and faculty. This is not a surface imitation; their language structure and use of words shows that they understand such concepts as stimulation, motivation, and the like. Part of this has been accomplished through the intensive training and weekly in-service sessions, part through the weekly conferences with supervisors and part simply through the continued interaction with various personnel. They have now reached the point where they are quite capable of suggesting hypotheses and designing their own investigations. One parent educator is currently conducting a survey concerning mothers' perceptions of when children become aware of race. Another group of parent educators are designing an experiment to attempt to measure racial awareness in infants. Their ideas and insights have been invaluable tools and helps throughout the course of the project in the construction of the various measurement techniques. A major question which can be raised is whether this training process has moved them farther

away from the mothers whom they serve, and thus in effect, destroyed one of the original ideas for their employment. We have no answer for this question.

The second question was whether a relationship between the parent educator and the mother could be sustained over time. Would the mother continue to participate in the project? No incentives were given to the parent to participate other than that the child might benefit. Continued participation was to some degree contingent upon the mothers' understanding and acceptance of a future gain for the child which was not observable in the early stages of our program. Mothers now say that they can see that the child is developing more rapidly than previous children. The statistics in Table 4 and Table 5 indicate some of the story. By no means did this project hold all mothers throughout the possible time. We expected attrition. We had no guideposts as to what the extent of attrition might be, nor did we have any clear ideas as to what were all the factors that might influence attrition rate. Obviously, families move, particularly families in these circumstances. A study of attrition between July 1 and September 30, 1966, indicates that two-thirds of the attrition during this period was due to moving from the area of the project.

We asked each parent educator to spend an hour or so tape recording what they felt to be the problems that mothers face in staying in the project and the problems that they faced in working with the mothers. Some of these statements are presented below.

When I first contacted this mother, she told me she was very interested in the project. But her husband objects. I started working with this woman, but pretty soon there was

always some kind of excuse. She kept me running back to the house every day in the week trying to find her. I found out that she was home when I'd come to visit but wouldn't answer the door. But this still didn't stop me from going back and contacting her. I even went at night and this was when I found out that she was working, and it was her husband who didn't really want me to come around. After she got off work in the afternoon she would go to her husband's grandmother's home until he got off work in the evening. So I suggested that I come by the grandmother's home in the afternoon when she got off work to work with her and her baby. But she said this wouldn't be possible. What I'm trying to say, is that I think it's the father who is objecting to my working with her and the baby. She really has no choice but to do as her husband wants. The father has been in some trouble lately and I heard the mother moved out of town, but I don't believe she has. I just can't seem to be able to contact her. I even explained to the father one night why I thought this was so important for the baby, but it didn't ring any bell with him.

Some of the difficulties that mothers run into that make it difficult for them to participate in the project are friends or people that tell them they don't see any sense in this project. Again, they're not interested. They talk it over with their husbands and decide it's a bunch of nonsense. Some of the mothers feel that the exercises are going to take up a lot of time, and the baby is going to enjoy this and want to do this all the time, and they don't have the time to spare.

A lot of them have troubles with their husbands. Some of them have to work and some of them have to take care of younger children, and some of them just like to be on the go all the time -- never to be home. So I guess this is the reason that it makes it hard for them to be in the project. And then what do the mothers mean when they say that they don't have time? Well, a lot of them simply aren't interested and they don't want to take the time for this. They don't really care about their baby or anything, or rather they don't believe in our project -- that we can do so many things, that we can help them to learn to do so many things for their baby in an educational way. Some of the mothers are, I gather, just lazy and they feel like we look just at their homes or something -- I don't know. They don't like to clean their house and when we get there, they're embarrassed about the fact that their house isn't clean and their other children aren't taken care of. I think we should sit down and explain to them more thoroughly what this really does mean to their infant

because it really is hard to have some of these mothers thoroughly understand it. Sometimes you have to tell them four or five times before you get it over to them. I had one mother that I worked with for a month and she still couldn't get the meaning of it. So after a month I had to sit down with her and explain to her again the importance of this project and what it could do for her baby. So she finally did get the meaning of this and now she has done fairly well with her baby who is a pretty smart infant.

These statements reflect the difficult life circumstances of the families with whom we are working. In some cases it is clear that rather than being seen as a help, the Parent Education Project was perceived as one additional source of pressure. Some of the reports by parent educators indicate that the program violated to some degree the norms of the culture. Mothers stopped working with us because they were ridiculed by another family member for talking to children when it was obvious the babies could not talk back (Additional statements indicating both progress and difficulty are in Appendix B).

Measures of Infant Performance

In spite of the difficulties, over 100 mothers of the original 150 stayed with the project a minimum of 3 months so that it became possible to compare the performance of these babies at their 6 month birthday with control group no. 1 which had simply been visited periodically by a nurse. As of October 12, 43 experimental and 24 control babies have been tested at the 12 month point on the Griffiths Scale of Development which serves as our standardized instrument for making such comparisons, and 38 experimental and 12 control on the 12 month series. Tables 6, 7, and 8 present the data. They allow us to answer our third question at least partially at this time. That is, do the children benefit from such a program?

TABLE 6. Proportions of Success on Series Items
at Sixth Months Tests

Experimental (N=104)			Control (N=21)		
	n	P	n	P	Z
Series I					
Item					
1	49	.47	10	.48	-.08
2	102	.98	21	1.00	-.65
3	100	.96	21	1.00	-.93
4	97	.93	20	.95	-.34
5	97	.93	19	.90	.40
6	95	.91	18	.86	.70
7	72	.69	6	.29	3.45***
Series II					
Item					
1	19	.18	4	.19	-.11
2	40	.38	8	.38	0
3	24	.23	12	.57	-3.14**
4	84	.81	13	.62	1.91
5	87	.84	20	.95	-1.32
6	54	.52	14	.67	-1.26
7	78	.75	17	.81	.58
Series III					
Item					
1	11	.11	2	.10	.13
2	44	.42	12	.57	-1.28
3	6	.06	0	0	1.15
4	28	.37	1	.05	2.18*
5	22	.21	2	.10	1.18
6	17	.16	0	0	1.97*
7	19	.18	2	.10	.90

* P = .05

** P = .01

*** P = .001

two-tailed test

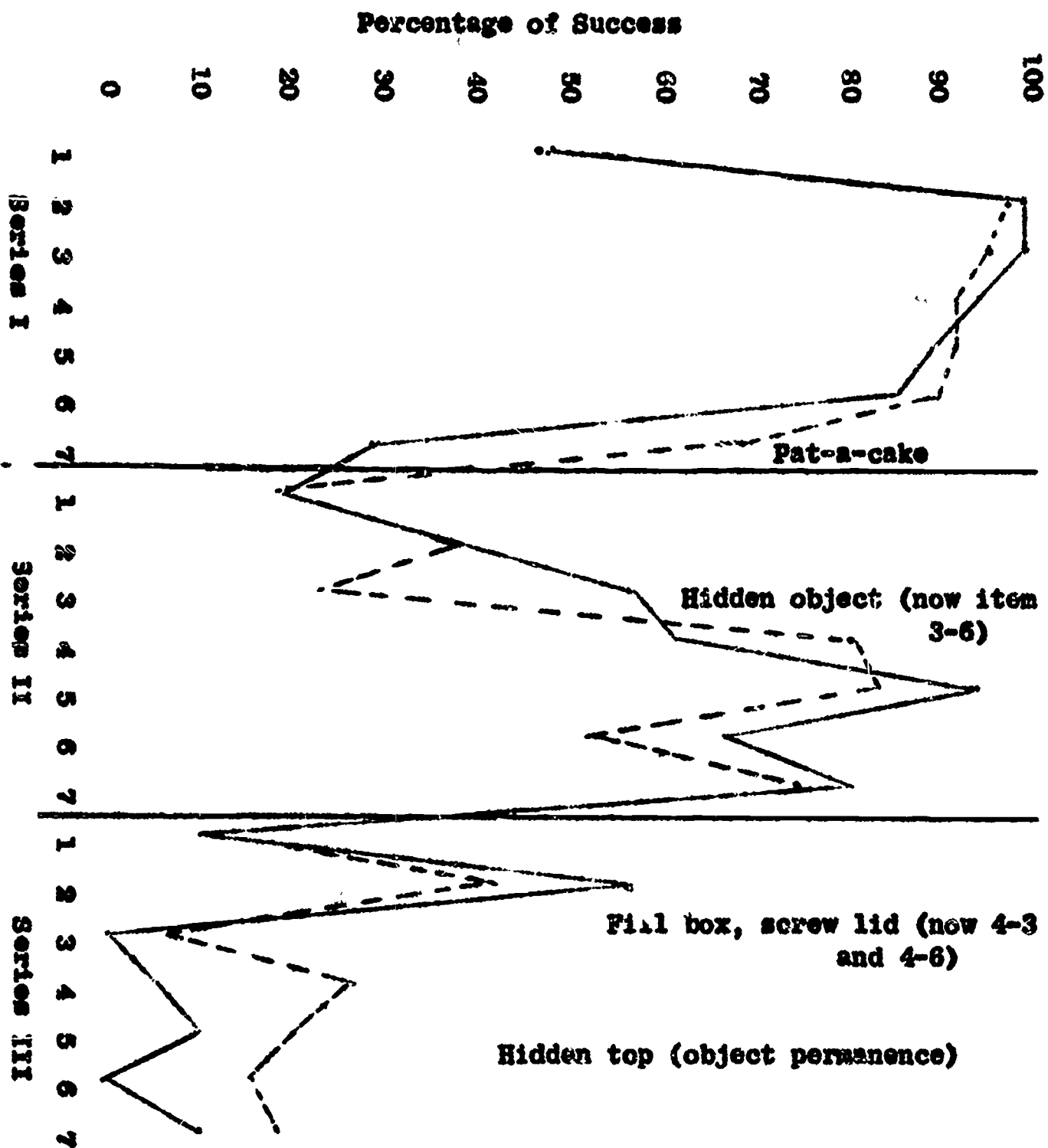


Figure 2. Performance on 6 Months Test by Item

----- = Exp N=104
 _____ = C₂ N=21

Primarily vocal tasks: I-1
 II-1
 II-2
 III-1

Significant items are identified

TABLE 7. Proportions of Successes on Series Items (12 months)

Experimental (N = 38)				Control (N = 12)			
	n_1	n_2	P	n_1	n_2	P	Z
Series V							
Item 1	38	28	.74	12	7	.50	1.01
2	38	24	.63	12	10	.83	-1.30
3	37	13	.35	12	4	.33	.11
4	38	26	.68	12	5	.42	1.67
5	37	19	.51	12	3	.25	1.60
6	37	9	.24	12	4	.33	-.61
7	38	21	.55	12	5	.42	.82
8	37	15	.41	12	1	.08	2.07*
Series VI							
Item 1	37	3	.08	12	0	0	1.01
2	37	1	.03	12	0	0	.57
3	31	6	.19	12	8	.67	-2.97**
4	37	11	.30	12	0	0	2.14**
5	37	18	.49	12	4	.33	.93
6	37	14	.38	12	4	.33	.28
7	36	7	.19	12	3	.25	-.41
8	34	6	.18	12	0	0	2.70**
Series VII							
Item 1	34	14	.41	12	1	.08	2.08**
2	34	7	.21	12	1	.08	.96
3	35	2	.06	12	0	0	.85
4	32	1	.03	12	0	0	.62
5	35	1	.03	12	2	.17	-1.69
6	31	0	0	12	0	0	0
7	33	9	.27	12	2	.17	.73
8	33	26	.79	12	9	.75	.27
Series VIII							
Item 1	33	0	0	12	1	.08	-1.67
2	33	5	.15	12	1	.08	.59
3	32	0	0	12	0	0	0
4	33	0	0	12	0	0	0
5	31	0	0	12	0	0	0
6	31	0	0	12	0	0	0
7	31	10	.32	12	1	.08	1.61
8	28	3	.11	12	0	0	1.18

N_1 = number of babies who were tested on item. Not always equal to N.

N_2 = number of babies successful on item

*P = .05

**P = .01

two-tailed test

Figure 2. Performance on 12 Months Test by Item

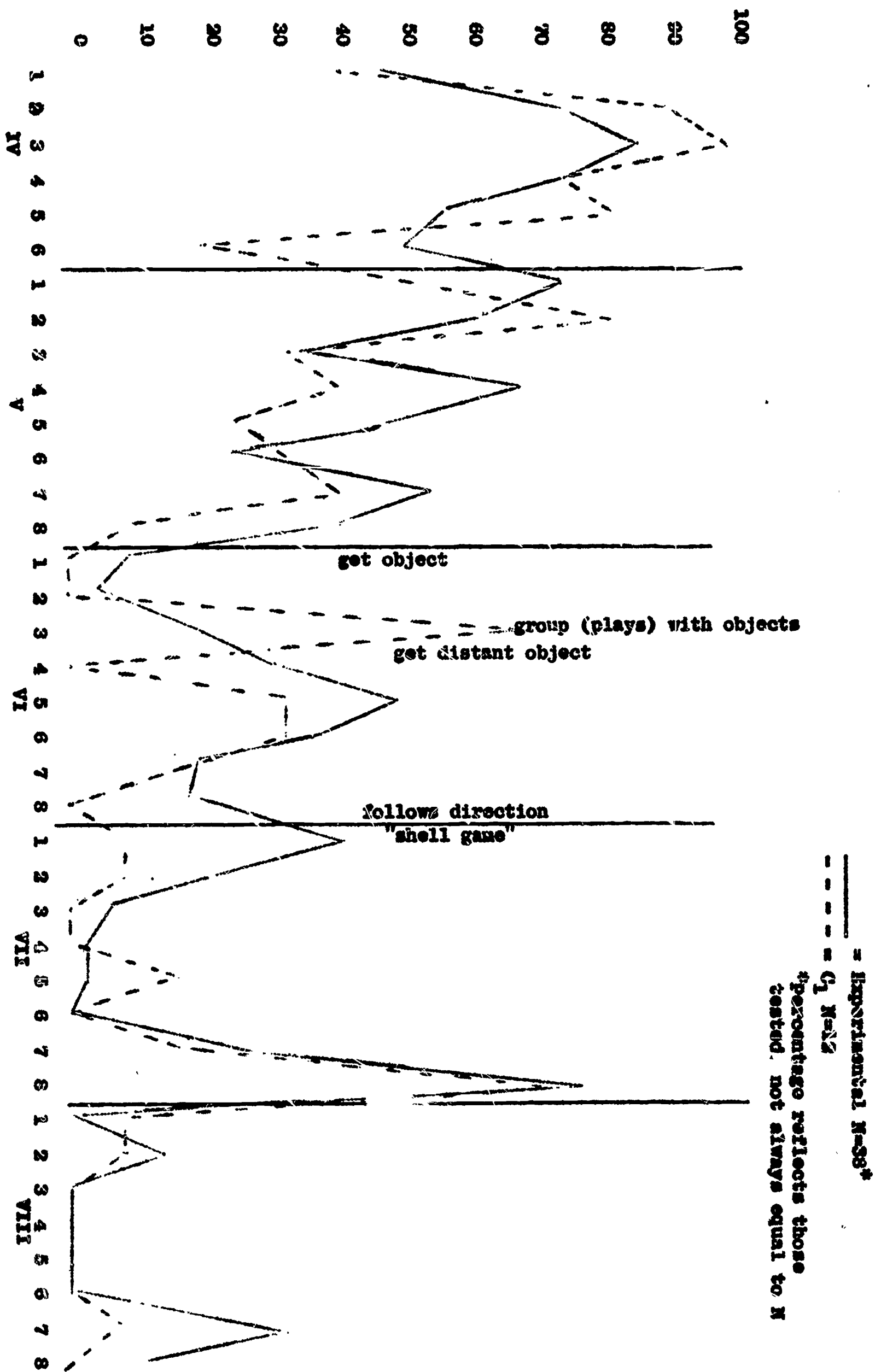


TABLE 8. Griffiths Scales of Development (12 months)

Scale	Experimental (N=43)		Control (N=24)		<u>t</u>
	\bar{X}	SD	\bar{X}	SD	
Total IQ	111.0	10.6	107.0	11.3	1.5*
Locomotor Q	118.7	19.6	116.4	17.5	.46
Eye-Hand Q	112.8	12.0	106.2	11.9	2.11***
Personal-Social Q	112.3	25.2	109.6	18.0	.52
Performance Q	110.2	14.0	110.0	16.8	.05
Hearing-Speech Q	102.8	20.8	94.0	13.7	1.83**

*P = .10 > .05
 **P = .05 > .025
 ***P = .025 > .01
 one-tailed test

Figure 4
Performance on Griffiths

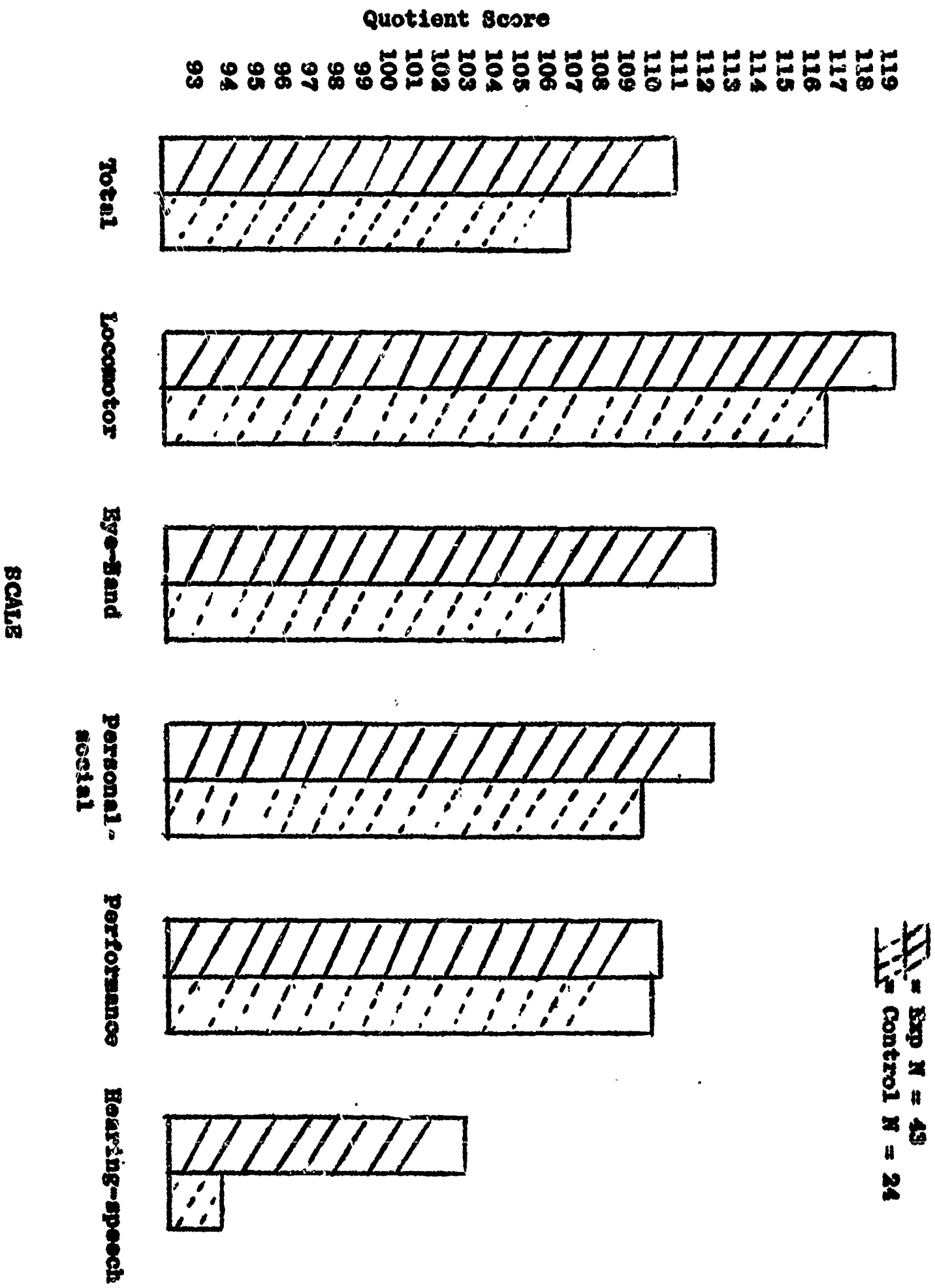


Table 6 indicates several interesting findings, and Figure 3 presents the same data in another form. It is clear that verbal exercises show the deficit we would expect in this population. However, the effects of the program are noticeable in series 3, where again we would expect the most difference. From Piagetian theory, the tasks on which the experimental babies are superior relate to complex combination of schema and to object permanence. This would place a portion of the experimental babies in Piaget's sub-stage 4, able to use familiar schemas in new situations as a means to an end. According to Piaget, this would usually occur between 8-12 months. These gains reflect a maximum of 12 hours of instruction of the mothers, with direct training in series 3 tasks probably limited to one or two sessions with the mothers. Although the curve does not resemble a straight line, indicating that items within a series vary in difficulty, the general trend between series indicates increasing order of difficulty.

On the basis of these data (from even more preliminary analyses on smaller samples) some items were re-assigned, and the amount of direct verbal cues to the mother increased.

Table 7, on 12 months series data, is a preliminary one. Many babies have not reached the 12-month mark, or could not be tested at the exact time because of illness, etc. A more complete picture will be available in February, 1968. Nevertheless, there are several interesting trends. One trend is the perhaps cumulative effect of the program. A sign test applied to the six month measurement indicates no overall difference in direction. On 20 items, 10 favored the experimental. The same technique applied to the 12 month

measurement indicates that of the 32 items on which there were differences, 22 favored the experimental. The probability of such a percentage being due to chance is less than 5 per cent.

The particular differences are noteworthy. Item V-8 requires the child to get an object, previously named, upon request. Item VI-4 is essentially the same, except the object is at a greater distance and has not just been named for the child. Item VI-8 is a precursor to conservation of liquids, and again requires the child to respond to a verbal request and execute an action. Item VII-1 is a variation of the shell game, in which the child has to locate a hidden toy under a can. This relates to object permanence. What is especially interesting is that these are difficult tasks for a 12 month old, and only one control baby could do three of these, while at least thirty per cent (18% for VI-8) of the experimental babies were successful. The one task which favored the control babies (VI-3) is non-verbal. It requires the child to play with two types of objects, and somehow indicate a recognition of grouping. As in the case of the 6 months measure, the items on which control babies tend to do better are the earlier, less difficult items; those on which the experimental do better are the later, more complex ones.

The data support the initial hypothesis that stimulation pays off.

One can raise the obvious question concerning the use of the training task as the same measure for estimating differences between trained and untrained groups. The Griffiths Scale was used to provide an independent means of assessment. Table 8 presents the data. The experimental babies are ahead on two of the sub-scales and overall score. The pattern (high locomotor, low speech-hearing) is the

expected one for disadvantaged groups. The items on the Griffith are distinct from the items on the series, so that the Griffith provides independent support for our main hypothesis.

Our results to date permit us a cautious answer to the question, do the children benefit. The answer, as of this time, is yes.

Measures of Maternal Attitudes

We were also concerned with whether or not mothers were modified or changed in their feelings of competence as a result of participation. Two instruments were developed to assess this phase of the work. Coleman's study (1966) along with others suggested that our particular population, especially the Negro portion, might feel less sense of control over their own destiny than middle class adults. The Rotter Social Reaction Inventory (1936) was modified through working with the parent educators into an instrument at the language level of the mothers. The first step in this modification was rewriting the items to a fourth grade vocabulary level. The second step was trying it out on the parent education staff for reactions and suggestions. The third step was training the parent educators to read the items in such fashion that they would not betray an expected response. This was done because some of the mothers would obviously be unable to read the items themselves and we wished to spare them the embarrassment of being confronted with such a task. A reliability check was run using a comparable group of women and yielded a test-retest reliability coefficient of .78 with an N of 35. Most of the work with this scale lies in the future (see Appendix A) but its development was made possible by the support of the Foundation.

The How I See Myself scale, which had been developed by the principal investigator on school populations, had been factor analyzed and yielded several factors which are of interest to this project. The factors, and their reliability coefficients (N-34) are: interpersonal adequacy, $r = .82$; autonomy, $r = .68$. The How I See Myself scale is administered by a research staff member in the home in the presence of parent educator at the time the staff member conducts the 12 month series test on the child. Too few completed scales are available for a worthwhile comparison. Copies of the Rotter Social Reaction Inventory and the Gordon How I See Myself scale are in Appendix C.

Series Modification

As a result of the six month tests, and the suggestions of consultants, both the series order and content were modified. Table 9 shows these changes.

TABLE 9. Changes in Series Task Order

Original series	Direction*	Revised series
I-3		I-4
I-4		I-5
I-5		I-6
I-6		I-7
I-7		I-8
II-3	later	III-6
II-5	earlier	I-9
III-1	later	III-8
III-3	split into (later)	IV-3
III-3		IV-6
III-6	earlier	II-3
IV-1		IV-2
IV-3		IV-4
IV-4	earlier	III-3
V-5	later	VI-5
V-6	later	VII-5
VI-3	earlier	V-5
VI-5	earlier	V-6
VII-5	earlier	VI-3

*indicates change from one series to another, rather than change within a series.

NEXT STEPS

In February, 1967, a proposal (Appendix A) was submitted to the Department of Health, Education and Welfare, Children's Bureau, for continued support of the activity. The proposal was approved and a grant made beginning July 1, 1967, for support through June 30, 1969. This continued support allows a longitudinal program through the second year of life, a new group of beginning families and the development of and testing of further hypotheses concerning relationships between stimulation, mother competence and child growth.

In addition to the support for this project, the original support from the Foundation opened many other avenues for further investigations of the whole issue of parent education and infant stimulation. We are presently thinking of studies of the spread of effect. For example, does the mother use these procedures with her next child without any additional assistance from a parent educator? Does the mother who is satisfied with the growth of her child spread the word to her neighbor?

We are also concerned with ways of reaching children, whether they be middle or lower class, who are left all day in day care centers. How can we further institutionalize the role of parent educator so that the community takes over the support of this function for servicing day care youngsters, either under public or private responsibility? Can we teach high school youngsters to function with infants and young children as a way of giving them a sense of role in the society as well as preparing them for marriage

and family life? Can we move toward the adoption of these procedures as part of school system operations, although at the present time Office of Education grants and state funds are obviously ruled out? We are also interested in following the future development of the children in the project through longitudinal studies that may or may not include further intervention procedures beyond the second year of life.

One clear gain from the original project has been the all-university type of interest which has been engendered. It will be noted that the extension of our work being supported by the Children's Bureau includes faculty members from clinical psychology and anthropology-speech. A Master's thesis was written during the project by a graduate student in anthropology who studied the parent education training program. This thesis is not yet available. Connections have been established clearly with the various departments of the College of Nursing, so that some of the procedures developed in the project will be taught to nursing students. These types of gains yield unpredictable payoffs. We have seen these as basic to our effort. It was the hope of the principal investigator that the project would become an umbrella in which researchers and service oriented people from a variety of disciplines could find opportunities for furthering our general understanding of the growth process and of the affects of training on development.

One of the immediate next steps is an analysis of the demographic information collected both weekly by the parent educators and in a final observation report (see Appendix E). In particular we will be

examining the type of verbal communication in the home, the nature of the reward and punishment system, and the relationships, if any, between these and child performance. This particular project will focus on the babies and families which were visited by the nurses (control group 1).

We will be investigating the comparable performance of babies in this project against middle class samples. We wish to see if these babies not only gained over control populations but also held their own by the end of the second year of life when one would normally expect they would be falling behind middle class children.

Since the research staff is made up of graduate students, several of these projects will lead to doctoral dissertations. When these students leave the university, hopefully they will carry with them experiences which will influence their further work.

DISSEMINATION ACTIVITIES

Our fourth question was whether the results and the process could be disseminated so that a new role could be created and a new program advanced. Although it is still too soon to tell about the gains for the child, by the nature of things, we have been identified as a source of information for people throughout the country engaged in intervention activities with young children.

Our first efforts at dissemination were local. We were concerned with informing school personnel in the various counties in which our project was located about our efforts. Representatives from these counties attended a meeting in January, 1967. The project was

explained to them in considerable detail. Interest was so high that the Gainesville component of the Southeast Educational Laboratory (Regional Laboratory) checked with Washington to see if the various counties could organize a joint Title III proposal to engage in this work through the county school systems. Service elements would shift to the county while research and evaluation remained with the University. Unfortunately the ESEA of 1965 did not allow programs to reach below kindergarten. This prevented the organization of a program, but still left the counties with considerable interest in looking forward to the time when such a shift could be made.

The program was presented to the Board of Directors of the Florida Foundation, a group of alumni and other top level people in the State of Florida as a part of a day long meeting of the Board at Gainesville (January, 1967). Interest was again very high and encouraging. As a result, the wives of the Board members met at the house of the President of the University and spent a morning with Mrs. Bradshaw learning the details of the operation. We have subsequently received requests for our materials from some of these members.

The first reach past the state was in March, 1967, when Mr. Lally and Miss Lay presented a program on the project to representatives from the sixteen southern states and additional personnel from such institutions as Bank Street College at a conference sponsored by the Southern Education Fund at Athens, Georgia. As an outgrowth of that conference, we were asked by the Southern Education Fund to organize a statewide conference on Early Childhood Education which was held in June, 1967, at Gainesville. A copy of

that conference report is being published and will be sent to the Ford Foundation.

The Office of Economic Opportunity established a program to be called Parent Child Centers. The principal investigator was asked to attend the orientation seminar (September, 1967) to present the program to the prospective directors of the centers. As a result of that program, copies of our booklet are being disseminated to all of the centers and we have received considerable numbers of requests (see Appendix F for a list) for information about our work. We have been informed by OEO that our program was well received and will play a role in influencing the direction of these Parent Child Center programs.

The National Laboratory Clearing House in Early Childhood Education located at the University of Illinois, sent one of its staff to Gainesville to see our work and again, the project was favorably reviewed. Dr. J. McV. Hunt, the head of the laboratory, has invited the principal investigator to attend a special meeting this fall of a small group who are engaged in intervention operations for the exchange of information. We have also been visited by Dr. Stedman of the Duke project and Dr. Phillips from Peabody DARCEE project. In this respect, dissemination was a two-way street. Both these people served as consultants to the project as well as carrying back what we were doing. This same type of activity occurred with respect to Dr. Egon Ringwall from the University of Buffalo, who was of particular assistance in strengthening the verbal content of the revised booklet and Dr. Paul Nachtigal from Colorado who

was the Ford visitor. Mrs. Pearl Drane of the Mississippi Child Development Group also served as a consultant and as a disseminator.

We developed a film (still incomplete) of child behavior to use in reliability training of our testers so that we would be sure that they would be reliable in judging series achievements. This film, in turn, can become a vehicle for dissemination. We are interested in the possibilities of developing a more ambitious film conveying actual training techniques.

Although the support from the Foundation has reached an end, the continued support from HEW will enable us to carry on the activities begun last year. We expect that our dissemination activities will grow through visitors to the project, through the booklet, and possibly through the film as well as through further presentations at research and service conferences. We are optimistic that we can find ways to disseminate the point of view of the use of personnel and the training techniques for both parent educators and mothers. We feel that this project is unique in this approach and that it will make a difference, not only on the local scene as our area develops Parent Child Centers and Neighborhood Development Centers, but also throughout the Southern region and the country as other projects build on, modify, and test what we have begun.

DISCUSSION

It is not possible to convey in the printed word the totality and complexity of this project. It has gone far better than we had any right to hope. There have been many frustrations and many

difficult and anxious moments. We discovered, as we are sure other have before us, that a combined service and research organization engaged in a field operation is always faced with problems of compromising research design for the maintenance of the service. We have wondered whether we have burdened our parent educators and mothers because of our needs to collect data, but they have somehow come through and stayed with us. We still have many questions about both the immediate and long-range effects of our work. Only continued longitudinal study and subsequent investigation will tell whether there is any lasting payoff. We see, although we are well aware of the Hawthorne effect, a variety of evidence that we have made a difference in some lives. Whether we have raised hopes that will subsequently be dashed only time will tell. Although as scientists we realize the data are not yet all in, we feel now that we are on the right track.

There is one area in which we have some reservations. We are not sure how well we can serve all the population. A more careful study of attrition and the relationships between personality makeup, the life circumstances, and survival rate in the project might give us some clues about whether there is a portion of our population so apathetic, so externally controlled, so overwhelmed with their burdens that they cannot be reached successfully by such minimal support as this. We are also concerned, and feel that the Parent Child Center movement may offer a way, for reaching other family members. This project did not reach the fathers, nor was it so intended. Some fathers, of course, became interested, but others

either worked against us or were totally indifferent. We did not necessarily reach older siblings, and there may be ways that are being developed elsewhere that could be readily adapted into this program. We never intended to be nor have we been all things to our families. We have stayed clearly inside the educational framework, with referral to other agencies for medical or welfare services when we became aware of these. However, a comprehensive program for some of our families may be an absolute necessity for growth and change.

One of the most intriguing elements was the justification of the notion that people will rise to the challenge. There were many here who felt that our trainees could never become parent educators, and that they would never be received by the mothers. It is obvious that they were wrong. Further, the research staff itself was an untrained, young, but eager group. It went through practically a complete change of personnel in spring and summer as students completed their work or went away on internships, and new people were recruited. It was gratifying to see them take hold even though there was, of course, some slippage, some relearning, some adjustment in the process. There are only two people, in addition to the principal investigator, who have been with the project from its inception. Mr. J.R. Lally, who served as the project Director with major responsibility for the training program and for day to day operation and Mrs. Carolyn Bradshaw, who had the major responsibility for recruitment of the parent educators and for the control group which was visited by the nurses. Whatever success the project has had is due, in large measure, to their efforts, the joint

efforts of the other research and supervisory staff, and the parent educators.

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APPENDIX A

EARLY CHILD STIMULATION THROUGH PARENT EDUCATION

EARLY CHILD STIMULATION THROUGH PARENT EDUCATION

1. PROBLEM

The purpose of this project is to investigate a way in which early intervention into the lives of babies might break the poverty cycle. The project attempts to simultaneously raise the chances that the infant will reach a higher level of intellectual functioning and that the adult who mothers him will gain in competence and feelings of self-worth.

To achieve this purpose, the technique of using disadvantaged women to teach mothers how to stimulate their infants has been developed in a pilot program.

The pilot program, described in Appendix A1, has demonstrated that disadvantaged women can be selected, instructed and placed in other disadvantaged homes to teach mothers ways to stimulate the perceptual, motor and verbal activities of their infants.

The stimulation procedure consists of a systematic series of perceptual-motor-auditory-tactile-kinesthetic inputs based upon a review of the theory and research on cognitive and affective development in the earliest years.

The concept that the earliest years of life are critical in the development of not only the personality but also the intellectual development of the individual is becoming generally accepted by the scientific community and the society-at-large. A clear indication of the spread of this idea is in the President's State of the Union Message of January, 1967, in which he urged that we try new methods of child development and care from the earliest years. However, there is a considerable empirical and theoretical gap between the generalization stated above and the systematic implementation of procedures to foster development. For example, the nature of the experiences which serve to stimulate development, and their sequencing, is not fully understood. The timing and amount of intervention are unknown qualities. The interplay of family climate and task is not clear. In addition to these scientific questions, we face practical questions as to how various populations can be reached to use what is known. Although laboratory work should be continued, the basic test of the concept must be conducted under field conditions. It is only as stimulation techniques are investigated under home conditions, without elaborate gadgetry, that the practical as well as scientific questions concerning the efficacy of stimulation can be answered. The importance of providing opportunities for children to function at their highest possible level has been well stated by Hunt. "Participation in our highly technological culture calls for high competence in the use of our symbol systems of language and mathematics and for ability to think and to appreciate evidence. The rapidity of technological change demands that all individuals have the ability to cope with change. . ." (Hunt, 1966, p. 143-144) Based upon a series of programmatic investigations of child rearing, R. Sears (1957) hypothesizes that the differences between

lower-class and middle-class child rearing patterns are a function of access to information. The general literature on cultural deprivation indicates that language training and other activities which contribute to development are either minimal or constricted in disadvantaged families. Because of this deprivation, potential is damaged.

Given the belief in the importance of early stimulating experience, and the data that it is not available to indigent families especially in the rural and small-town South, how do we bridge the gap? How do we transmit to indigent mothers the information, along with the skill, concerning ways to play with and interact verbally with their babies so as to enhance the babies' potentials for development?

The pilot program developed a way to educate these parents to provide their children with a good start, so that the poverty cycle in these families might be broken. As the children are better equipped to cope with school, they can move out of the indigent class into productive meaningful work. Further, as the mothers learn to deal effectively with their infants, their image of themselves and their general helplessness may change.

The problem is to investigate the effectiveness of the particular technique developed in the pilot. It represents an innovation in child welfare services, which, if effective, extends the reach of the professional, and, in the long run, reduces the need for services as the participants become more capable of meeting their own needs.

2. REVIEW OF RELATED RESEARCH

Effects of Environment on Cognitive Development

The work of Piaget (1952) and his associates implies that thinking does not merely emerge but can be traced to the impact of experience upon functioning in the early months and years. Cognitive development proceeds through a process of integration wherein previously organized behaviors become an integral part of subsequent behavior. As existing mental structures are modified through functional adaptation in environmental interaction, intellectual growth occurs. Bloom (1964) indicates that effects of environment are marked and that the first four years are most critical. Loretan (1966) stresses that any of these early years lost in a poor environment are almost irretrievable. The critical nature of early experience for subsequent development thus becomes a crucial consideration for educational planning.

Data concerning the differential effects of environmental stimulation on the development of infants have been collected under conditions of deprivation caused by understaffing in orphanages and institutions (Goldfarb, 1955; Dennis and Najarian, 1957; Provence and Lipton, 1963). Skeels and Speer (1939) reported that institutionalized infants, diagnosed as retarded, made significant upward changes in tested mental performance when placed in an environment with increased stimulation. Caldwell (1967) refers to a recent unpublished follow-up which found that the gains made

by the stimulated group were sustained into adult life, while all but one of the control subjects who remained institutionalized developed classic syndromes of mental retardation. Several recent investigations (Klinegold, 1961; Zayegh and Dennis, 1965; Casler, 1965; White, Castle, and Held, 1964) have further demonstrated the feasibility of positively altering early development through introducing stimulation programs for institutionalized infants.

The infant in a deprived home has many of the same lacks as those in institutions. Pavenstedt's (1965) descriptions of the lower-lower-class home suggest that there is a paucity of concern for the infant and further decreasing interest as the child reaches toddler stages. Hunt (1966) points out that it is during the second year that stimulation, especially verbal, is lacking in culturally deprived homes. If language-emerging months are critical to intellectual development, as Bayley (1966) suggests, the lack of stimulation in the lower-class home may be, at least in part, causative of retardation. In reviewing theory and research on attainment of concepts, Siegel (1964) stated, "The long-term significance of the intellectual functioning needs to be studied longitudinally. To illustrate, it may be that one reason children from so-called culturally disadvantaged homes have difficulty in kindergarten and first grade is that, they did not have appropriate stimulation during these early years." (p. 216) This study will contribute information about the effect of stimulation on children growing up in their own homes through a careful assessment of groups receiving such stimulation and control populations who receive only "natural" inputs from their deprived environments.

The role of language in the acquisition of meaning for different social groups is contrasted by Bernstein (1961) and Hess and Shipman (1965). Bernstein finds that middle-class persons utilize various elaborations of sentence structure and a range of referents to delineate and individuate person meanings. The lower class members, on the other hand, rely on highly predictable implicit utterances which poorly equip them to formulate discriminations and generalizations, make feelings explicit, or, as a consequence, become actively responsible for their own behavior or learning. In summarizing the work done in the development of language, thought, and personality, Lewis (1963) stresses the significance of the first three years of life in the future orotic and cognitive development of the child. "During the second year of life the process of the growth of meaning is a highly complex interaction of cognitive and orotic factors." (p. 37) Lewis further noted that in verbalizing the child does so in concert with others through interaction with them. During the second year "manipulative communication will also through extension and contraction, contribute toward naming." (p. 63)

Despite frequent references to the importance of the first two years by many authorities, there appears to be only one empirical investigation of a specific program for the second year. Irwin (1960) reported the effects of a program in which lower-class mothers read to their infants for ten minutes each day beginning at thirteen months. At twenty months the experimental group was superior in all phases of speech.

The studies of Hess and Shipman and Bernstein, cited above, have focused on the form and content of language. For the young child who comprehends little content, and even for the older child who does, the "tone of voice" in which content is relayed is another important part

of the communication process (Kramer, 1962; Mahl and Schulze, 1964). Markel (1965) has demonstrated that the reliability of coding pitch, loudness, and tempo for a sample of language allows further analysis in contrasting speech differences as, for example, in assessing effects of an educational program. This study will not only provide language experience but also assess its impact, which has not been done in previous investigations.

The interrelationships of specific cognitive attainments to perceptions of self-identity and person-identity have seldom been explored with young children. Several investigators have found that awareness of racial identification exists at three years (Morland, 1958; Stevenson and Stewart, 1958). Fowler (1962) reports that color discrimination is also a product of this period. The question of whether participation in an enrichment study will facilitate the development of color discrimination and as a correlate, racial awareness, has not been previously investigated.

Environmental Influences on Affective Development

Although it is difficult to delineate the features of the mother-child relationship which are essential to personality development, Bowlby (1951), Spitz (1965), and Erikson (1950) postulate that a one-to-one relationship with a great deal of attention is necessary. Erikson stresses the vital role of the mother-child interaction during the first two years of life in developing the sense of basic trust and autonomy. He hypothesizes that "the capacity to find gratification in the outside world is related to the degree of success during the first two years of life." (p. 219)

Witkin (1962) noted that the early mother-child relationships and living conditions seem to be the determining influences on adult personality. Moss and Kagan (1964) saw maternal treatment from birth to three years as a better predictor of later childhood and adult ratings than that in other age periods. Sears (1957) and Bandura and Walters (1963) present further evidence of the influence of early child-rearing practice upon development. The home in which this study will be conducted offers many opportunities to investigate the child-rearing practices and living situation, and the effects these may have upon the child.

The Population

That the present position of the American Negro leads to negative self-perceptions has been noted by Goff (1949), Ausubel (1963), and Kvaraceus (1965). Coleman (1966) stresses the Negro's perceptions of inability to control his own environment. The high correlations reported by Coleman between feelings of being at the mercy of chance happenings and such factors as school achievement coincide with the findings of Rotter (1966) and others investigating internal-external control expectancy. A series of studies were cited by Rotter as providing strong support for the hypotheses that the individual who has a strong belief that he can control his own destiny is likely to be alert to aspects of the environment which provide useful information for future behavior,

to take steps to improve his environmental conditions, to place greater value on skill or achievement reinforcements (Gore and Rotter, 1963; Batt'e and Rotter, 1963). Although it has been shown that internal control is related to affiliation and initiative in improving conditions, the question of whether opportunities to affiliate and improve the life situation will change expectancy to a more internal direction has not been previously investigated.

The Non-Professional Worker

The utilization of persons as educators who are seen by the parents as like themselves and with whom they can easily identify is an innovation which attempts to aid both mother and child. Reissman (1966) and Levinson and Schiller (1965) report the utilization of non-professionals who are themselves members of the low socio-economic treatment group to increase communication effectiveness as well as relieve case loads of professional workers in welfare agencies. When use of the indigenous non-professional involves an educational program dealing with interpersonal relationships, communicative skills, professional confidentiality and maintaining personal identification, performance at a high level of competency occurs. This competency, however, can be maintained only by continuous interaction of the non-professionals and the professional; by a congruency of beliefs concerning human beings. This kind of constant interchange is central to the proposed study.

This study, therefore, is designed to investigate, in a population representing indigent Negro and white families, in rural, small town and small city settings, the effects of psycho-social environmental variables described above upon the early development of children. It will serve to begin to fill in some of the gaps in our knowledge about the population, the effects of stimulation, and the means to be employed in educating mothers in procedures which enhance the development of their children. The pilot project, described in Appendix A1, laid the groundwork for this project.

3. OBJECTIVES

The objectives of this project are to find out whether the use of disadvantaged women as parent educators of indigent mothers of infants and young children (a) enhances the development of the infants and children and (b) increases the mother's competence and sense of personal worth. It is understood that these two objectives may have a functional relationship with each other, and our hypotheses will reflect this, but here we see them as two equally important outcomes which may be treated as independent. It is, of course, understood that other approaches might accomplish such objectives. The aim here is to investigate whether this particular complex of activities accomplishes the goal.

In order to measure accomplishment of these two objectives, hypotheses have been developed relating to such classes of variables as: home situation, content of stimulation materials, amount of stimulation.

A third objective, simply stated, is to increase our knowledge of the home life of infants in this population. As Ainsworth has indicated, "To date, there is little published information about infants in their own natural habitat, the home." (1964, p. 1) In order to achieve this objective, a series of questions has been framed.

Hypotheses Relating to the First Objective

1. At the end of their first year of life, children whose mothers were educated in the stimulation series will be more highly developed than those whose mothers received no instruction.

- a. They will perform successfully on more series tasks.
- b. They will score higher on standardized measures of development.
- c. They will have more awareness of color and race.

These three sub-hypotheses apply also to hypotheses 2, 3 and 4, and, in null fashion, to 5.

2. At the end of their second year of life, children whose mothers were educated continuously since the children's third month will be more highly developed than (a) those children whose mothers received instruction in either the child's first or second year (b) those children whose mothers received no instruction.

3. At the end of their second year of life, children whose mothers were educated in only the first year will be developmentally more advanced than children whose mothers were educated in only the second year.

4. At the end of the first year of life, children whose mothers were educated in the series will be more highly developed than those whose mothers received a different pattern of instruction, of an equal length of time.

5. There will be no difference between those children whose mothers received no instruction or visits and those whose mothers had monthly visits from nurses during the first year.

Hypotheses Relating to the Second Objective

6. Mothers who receive instruction will have higher expectancy of internal control than those who do not receive instruction.

7. Mothers who were educated in the series will have more elaborate language codes than those who were not educated.

8. Mothers who were educated in the series will have higher feelings of self-esteem than those who were not instructed.

9. Mothers who were educated in the series will have different voice qualities (pitch, loudness, tempo) than those who were not.

In all the above hypotheses, differences will also be a function of length and time of instruction. The longer the time, and the earlier the instruction, the greater the difference.

Hypotheses Relating to Interaction Between Objectives (a) and (b)

10. There will be a positive correlation between the mother's expectancy of internal control when the baby is six months old and the developmental level of the baby at 1 year and 2 years of age for those receiving instruction.

11. There will be a positive correlation between the mother's expectancy of internal control when the baby is six months old and the amount of verbal activity of the mother.

12. There will be a positive correlation between movement of the mother on internal control orientation from 6- 21 months and success of the baby on the series tasks.

Questions Related to the Third Objective

1. What is the density and crowding situation in these homes? How many people are in the home, and what are the space conditions?

2. Who actually cares for the baby? How many play mothering roles?

3. What is the extent and nature of verbal interaction?

4. What is the marital situation?

5. What happens during the visit which disrupts instruction?

6. What is the health situation of the baby?

7. How many children does the mother have?

8. Will there be differences in mothers' conceptions of the ideal infant, ideal male infant and ideal female infant according to age of the infant, race and parity?

Additional Hypotheses

13. There will be no difference within or between treatment groups as a function of the situation variables of: density and crowding, multiple mothering, number of children, marital situation, disruption, mother's sex-role expectation for the child.

14. Children in homes with higher levels of verbal interaction will be more advanced developmentally, within treatment groups, over those in homes with lower levels of verbal interaction.

15. Girls will be more advanced than boys, within treatment groups.

16. Within the groups receiving instruction in the series, both mothers' and children's development will be a function of the number of completed visits.

17. Children who are reported more often as ill will make less progress than those least reported ill.

4. PROCEDURES

(a) General Design

The major treatment variable is instruction of the mother by the parent educator in the stimulation exercises. This instruction is given once a week, in the home, on a regular home visit schedule. The mother is not only instructed in the mechanics of the exercises¹ but also in the general attitudes toward seeing them as play, to be engaged in at odd moments when both mother and child might enjoy them. These materials, and some skills in toy-making with paper, encouragement of all forms of play, are presented in such fashion that the mother learns by imitation of the parent educator, who demonstrates on a doll while the mother holds her own baby. The mothering role is not assumed by the parent educator, who involves the mother in the actual task.

To test the hypotheses and questions, each family in the original sample from the pilot program (For a description of sample, see Appendix A1) is to be followed until all children reach their first birthday. This will take until January 31, 1968. The first baby reaches his birthday about June 15, 1967, so that there is about an eight month spread. As babies reach this birthday, the group containing the mothers who originally received stimulation will be randomly assigned to the second year stimulation series or no stimulation group. As the original control babies reach their first birthday, the same type of assignment will be made. This will yield four main groups: E₁, receiving instruction from the babies' third month to his second birthday; E/C, receiving instruction until the first birthday but not during the second year; C/E, receiving instruction in the second year but not the first, and C₁, receiving no instruction in either year.

¹I. J. Gordon and J. Ronald Lally. Intellectual Stimulation for Infants and Toddlers, Gainesville, Florida, available through the Institute for Development of Human Resources, 1967.

TABLE 1
TREATMENT PLAN

Group	Original N	Treatment 3 Mo-1 year	Treatment 1 year-2 year
E ₁	75	Series	Series
E/C	75	Series	. .
C ₁ /E	13	Nurse visits	Series
C ₂ /E	12	. .	Series
C ₁ /C	12	Nurse visits	. .
C ₂ /C	13
E ₂	30	Series	Begins 7/1/67
C ₃	30	Other stimulation	Begins 7/1/67
C ₄	30	. .	Begins 7/1/67

In order to investigate whether it is this particular series, or another pattern of equal amount of time spent in the home instructing the mother, three new groups, (E₂, C₃ and C₄) selected in the same fashion as the original population (see Appendix A1) and randomly assigned to series stimulation, "other" stimulation and control were started in July, 1967. Thirty babies will be assigned to each group, which means it will take until about September 30, 1967 to assign the last baby. This will constitute all the eligible babies born in the hospital during this time period. The two groups of mothers (E₂ and C₃) will receive instruction until the babies' first birthdays.

The present parent educators who have mothers in the E/C group are assigned to work with mothers in the E₂ and C/E groups. They are able to do this as the babies in the E/C group reach their first birthday and move out of stimulation and are dropped from their case loads. (For time chart and population data see Tables 3, 4 and map). The case load of one parent educator to ten mothers will be maintained. New parent educators, who will not receive training in the series, were recruited for half-time work from underprivileged mothers who are working in Head Start and other early childhood programs. They are assigned on an equivalent case load basis (one to five for half-time). This plan is being used, rather than employing only three new people, so as to control for the personality or other educator variables which might influence results with too few educators. They have been trained in concepts of the importance of early stimulation, and have developed their own instructional procedures and content based upon their Head Start experiences and their general backgrounds.

The same staff ratio, of one supervisor to three educators, will be maintained. The supervisors will be described under staff.

The treatment variables are thus: type and content of instruction (E_2 vs. C_3) length of instruction and timing of instruction (E_1 vs. E/C ; E/C vs. C/E ; E_1 vs. C_1) presence of instruction (E_1 vs. $C_{1,2}$, E/C , C/E vs. C).

The dependent variables are: changes in mother and developmental level of the child. Specifics are contained in the hypotheses.

(b) Sample

The sample was described in the pilot project material in Appendix A1. Briefly, it consists of indigent mothers and their babies born between June 15, 1966, and September 30, 1967, at the J. Hillis Miller Health Center. Mothers were originally assigned to the experimental or control population on the basis of geography.

(c) Data Collection

The data on the mothers consist of a weekly home visit observation report called PEWR (Parent Educator Weekly Report), the Rotter Social Reaction Inventory modified to reflect a fourth grade reading level (SRI), the Markel Voice and Language Assessment a para-linguistic measure (MVLA), the Estimate of Mother Expectancy a semantic differential measure (EME), the Mother How I See Myself Scale (HISM), and a Final Observation Report including demographic and ecological data (FOR).

The data on the child include the PEWR, FOR, the Test of Performance on Series Tasks (ST), the Goldman race-awareness measure (RA), and the Griffiths Scales of Development (GS). It is recognized by the principal investigator that there are no clearly satisfactory measures of intellectual development for this age group, however, this deficiency will be overcome in part in that the above standard measures will yield perceptual-motor scores which will allow for comparison across groups. See Table 2 for data-gathering scheme.

Table 2 shows the data-gathering scheme. The first-year battery consists of the ST, MVLA, GS, and HISM scale. The second-year battery contains the RA measure in addition. The RA measure will be given to a sample of the total population. Thirty children (15 Negro and 15 white) will be randomly chosen from the E_1 , E/C and C/E groups for a total of 90 children, and an additional 15 Negro children from the C_2/C group will constitute the sample. There is an insufficient number of white children in the C_2/C group to include them. Series testing (ST) and Griffiths testing (GS) are being carried out by qualified staff members. The Final Observation Report is begun by the Parent Educators when the babies are 9 months and 21 months of age and completed at 1 year and 2 years of age.

TABLE 2

DATA-COLLECTION PLAN
(By Baby's Age)

Group	Age in Months						
	6	9	12	15	18	21	24
E_1	PEWR weekly ST SRI	PEWR weekly EME	PEWR weekly Battery	PEWR weekly EME	PEWR weekly RA(30) ST	PEWR weekly SRI	PEWR weekly Battery
E/C	PEWR weekly SRI	PEWR weekly EME	PEWR weekly Battery		RA(30) ST	SRI	Battery
C_1/E	PEWR monthly SRI	PEWR monthly EME	PEWR weekly Battery	PEWR weekly EME	PEWR weekly RA ST	PEWR weekly SRI	PEWR weekly Battery
C_2/E			PEWR weekly Battery	PEWR weekly EME	PEWR weekly RA ST	PEWR weekly SRI	PEWR weekly Battery
C_1/C	PEWR monthly SRI	PEWR monthly EME	PEWR monthly Battery	EME	RA ST	SRI	Battery
C_2/C			Battery	EME	RA	SRI	Battery

TABLE 2A
DATA-COLLECTION PLAN
(New Groups)

Age in Months					
Group	1½	3	6	9	12
E ₂	SRI HISM	PEWR weekly			SRI Battery
C ₃	SRI HISM	Modified PEWR weekly			SRI Battery
C ₄	SRI HISM				SRI Battery

TABLE 3

Frequency & Cumulative Frequency of Arrival at 1st Birthday by Group *

GROUPS	1967					1968					1969									
	Je	Jy	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Je	Jy	Aug	Sept	Oct	Nov	Dec	Jan
E ₁	4	8	10	10	10	11	12	10												
N=75	4	12	22	32	42	52	65	75												
E/C	4	8	10	10	10	11	12	10												
N=75	4	12	22	32	42	53	65	75												
E ₁ /E	1	3	2	1	1	2	3													
N=13	1	4	6	7	8	10	13													
E ₂ /E	2	3	3	1	2	2	2													
N=15	2	5	8	9	11	13	15													
E ₁ /C	1	3	2	1	1	2	3													
N=13	1	4	6	7	8	10	13													
E ₂ /C	2	3	3	1	2	2	2													
N=15	2	5	8	9	11	13	15													
E ₂																				
N=30																				
E ₃																				
N=30																				
E ₄																				
N=30																				

As of 10/3/67.

* Excluding attrition which is too variable to predict

As of 10/3/67.

* Excluding attrition
which is too variable
to predict

TABLE 4

TABLE OF POPULATION
(number of subjects by county)¹

Number of Families

<u>County</u>	<u>Groups</u>								
	<u>E₁</u>	<u>E₂</u>	<u>E/C</u>	<u>C₁</u>	<u>C₂</u>	<u>C₂/C</u>	<u>C₂/E</u>	<u>C₃</u>	<u>C₄</u>
Alachua	131 ²	31	49	14	8	12	15	19	19
Baker					1	1			
Bradford	1	2		6	6	2	8	4	3
Clay					1			3	3
Columbia		2		2	5	7	2	4	4
Dixie					3	7	4	1	3
Duval		1							
Gilchrist	5		1				1	1	3
Lafayette							1		
Levy	13	4	5	1		9	6	4	2
Marion		1		3	2	2	2	2	3
Putnam					1	1			
Suwannee						1			
Taylor					1				
Union	—	—	1	—	2	—	2	2	3
Total	150	41	55	26	30	42	41	40	43

¹Before attrition.

²Some of these to move to the E/C group as babies reach 1st birthday.

Educators administer the Social Reaction Inventory (SRI) during a weekly visit. Other testing necessitates the presence of another staff member in the home in addition to the Parent Educator. In order to reduce the mothers' discomfort, appointments for these visits are made and discussed by the Parent Educator with the mother in advance. The RME is being administered at 9 and 15 months.

(d) Analysis

The primary design is what Campbell and Stanley describe as the "Posttest-only control group design," which they recommend when pretests in the usual sense cannot be performed. They state, "Within the limits of confidence stated by the tests of significance, randomization can suffice without pretest." (1963, p. 195) Analysis of variance will be used to test hypotheses 1-9, 13-15. Pearson-Product moment correlation will be used for hypotheses 10, 11, 12. Hypotheses 16 and 17 will be tested by Chi-square.

(e) Time Schedule

1. Instruction of original groups until last child reaches first birthday: July 1, 1967-January 31, 1968.
2. Instruction of groups E₁, C₂/E until last child reaches second birthday: July 1, 1968-January 31, 1969.
3. Instruction of groups E₂ and C₃ until last child reaches first birthday: July 1, 1967-June 30, 1968.
4. Testing of children at appropriate birthdays begins July 1, 1967 and continues through January 31, 1969.
5. Analysis of final data: February 1, 1969-April 30, 1969.
6. Preparation of final report: May 1, 1969-June 30, 1969.

Significance of Results

This project has generalization power beyond the North-central Florida region in which it is being conducted. The results can lead to the utilization of this approach not only in other rural regions in the country, but also to urban areas. It is an economical approach to the problem of reaching young children. It can also be taught to workers in international projects who in turn can educate other indigenous personnel. For example, agricultural workers, Peace Corps and AID program people can carry out such a project with little cost after training.

In addition to the practical generalizability, the scientific results will offer many leads into further research concerning the cognitive and affective development of children, and the effect of environments on their development. What we will find out thus has two prongs of effect on the scientific and social communities.

APPENDIX A1

THE PILOT PROJECT

A pilot project was begun in June, 1966, supported partially by a \$90,000 grant from the Fund for the Advancement of Education. The major purpose of the pilot project was to develop a way in which early intervention into the lives of babies might break the poverty cycle. The project attempted to simultaneously raise the chances that the infant would reach a higher level of intellectual functioning and that the adults who mother him would gain in competence and feelings of self-worth. The technique of using disadvantaged women to teach mothers how to stimulate their infants was developed.

This program, described below, demonstrated that a small group of disadvantaged women could be selected, instructed and placed in disadvantaged homes to teach mothers ways to stimulate the perceptual, motor and verbal activities of their infants.

The research in the field indicates that disadvantaged people have a sense of lack of control, of helplessness. If an infant is taken from such a home, and receives stimulation directly from a professional, and then returns to the home, nothing is done to break the affect cycle. Could mothers be taught at home so that they would feel that they could aid the development of their own children? Could they become partners and participants rather than passive recipients? The investigation of these questions is possible because of what was learned in the pilot.

We lack sufficient number of professionals, and further, there are indications of language, class and caste barriers which might make it most difficult to rely on professionals to carry out a program of individual instruction of the mother in the home. Could women drawn from essentially the same circumstances as the mothers be trained to not only gain skill in stimulation but also in communication so that they can be the parent educators? How could these women be trained and could they do the job? These questions were answered in the pilot project.

Given that early stimulation is desirable, that the home is the place to do it, and that the mother, instructed by a nonprofessional from a similar background can be an effective stimulator of her child, of what should such stimulation consist? These homes are barren, some lack electricity or any items but the barest necessities. Elaborate self-stimulating devices are thus inappropriate. Simple exercises, designed to provide the infant with visual, tactile, auditory and kinesthetic inputs are desired. A purpose of the pilot program was to develop and test a series of exercises designed to provide these inputs in a fashion that would not only stimulate the child but also provide the mother with the chance to engage in active transactions with her baby.

Sample of Mothers in Pilot

By the end of the pilot project (summer, 1967) 150 mothers had received some instruction in one series from the parent educators. A control population of 50 families did not receive such instruction.

Mothers and their infants are identified at the birth of the latter by the obstetrics staff of the Teaching Hospital of the J. Hillis Miller Health Center of the University of Florida. The criteria for selection, in addition to the economic code of "indigent" on the hospital admission form and residence in Alachua and eleven other counties (see map at end of Appendix A) are: single birth, no breech or Caesarian delivery, no complications to mother or infant, no evidence of mental retardation and no evidence of mother's mental illness. The birth rate at the hospital is such that, beginning June 15, 1966, about 30 babies a month were added to the sample up through January 31, 1967. Assignment to experimental or control group was based on randomization of geographic area and avoidance of contamination. Towns and their surrounding areas were randomly assigned as experimental or control towns. Then they were randomly assigned as Negro or Caucasian towns. A given town then can be experimental for one race and control for the other. Gainesville, which has a relatively large area and population contains control and experimental subjects of the same race but in different areas (they are separated by at least four blocks). Thus, the risk of contamination was minimized. Procedures for notification and assent will be discussed under procedures.

Sample of Parent Educators

Fifteen parent educators, 12 Negro and 3 white (in rough proportion to the numbers of Negro and white deliveries at the Health Center) were selected in August, 1966. The original criteria were: high school graduation, unemployed or low level employment, some experience with infants. Applications were solicited through church groups, Head Start Centers, school officials and finally the Florida State Employment Services. Interviews were conducted by nurses from the staff, and final selections made by all staff members. Two of the white educators did not meet the high school graduation criterion. There were many Negro applicants; few whites. Thirteen of the original group remain on the project to date (September, 1967).

Procedures

The pilot project was a combination of research and demonstration, so that the procedures were kept as flexible as possible, yet as detailed as possible to allow for evaluation.

Training

Training was based on the concept that in order for our trainees to do a sufficient job and in order for the staff to find out the beliefs,

skills and attitudes the trainers brought to the project, it was necessary to insure that the trainee realized that her opinions, ideas, and attitudes were important to the success of the effective program. Each part of training, whether lecture, large group discussions, small group discussion, role-playing, field trips, interview training, observation practice or work with dolls and/or live babies and mothers was based on this fundamental belief.

Each day of the intensive five week training period (beginning September 5, 1966) was filled with problem-solving activity by the trainees. The topics discussed were always problems of basic concern to both staff and trainees, and usually came about from questions brought out by trainees during a role-playing session or some other practice exercise.

Another position taken by the staff during training was that the trainees would be treated as professionals and held responsible for different areas covered during the training period. Trainees were neither coddled nor checked upon continuously. The women responded to this treatment and actually enjoyed the responsibility given to them. This attitude has continued through to field work with the result that home visits are thought of as a professional responsibility rather than as just a job.

The most effective training procedures were operations as close to reality as possible. Lectures were brief and usually served as explanatory beginnings of activity exercises.

We found role-playing situations most useful to teach the series materials, interview techniques, and observation practices. The enlistment of strange (to the trainers) mothers and babies acting as subjects for the trainees was successful.

Motion pictures were used for objectivity of observation. The ability to show a scene over again and again has obvious advantages for this type of training.

As training progressed the trainees became more critical of their own and other trainees' skills. They were by far their hardest judges. For the most part criticism was constructive and helped raise the level of trainee competence.

Each series of exercises was explained and reasons were given for its use. Discussion followed the explanation. This was followed by demonstration of the exercises with a doll. Practice with dolls followed this step in small groups. Discussion of practice sessions was followed by work with babies, which was followed by a final discussion. The discussions were informal and many times spontaneous.

The largest task was the mastery of the series materials. By the end of training each trainee knew every exercise to be used, the reasons for its selection as part of the series, what it would do for the baby and, most important of all, how to teach mothers to teach their children the different exercises without letting the mother get the idea that

she was being "taught" or that she didn't know how to take care of her baby.

During the last week the trainees were sent to the hospital to make initial contacts with prospective mothers. Immediately after the interview, the trainee reported back to a small group, in one of the conference rooms in the hospital and reported to her fellow trainees how things went. These were more support groups than discussion groups and were used to relax the trainees before and after their initial contacts with the mothers.

Field work started gradually. Each research staff member was assigned three trainees, who are now Parent Educators, to supervise. For the first week of field work the parent educator was in the field in the morning and consulting with her assigned supervisor in the afternoon. These consultations dealt with questions the parent educators had and problems she had run into. Supervisors did not give direct answers to problems but explored with the parent educators different ways of attacking the problem. Role reversal was used in which the parent educator tried to put herself in the shoes of the mother she had just visited. Intensive training terminated with a parent educator and supervisor visit to each home that had been assigned. This visit was used as a final aid in observation techniques (the supervisor and parent educator filling out forms together) and as a means by which the supervisor could get better acquainted with his parent educator's mothers.

Each Friday is set aside for in-service training. Individual conferences are held with parent educators on this day and study in pertinent subject areas (child development, interpersonal relations, related community functions) is pursued.

Presentation to Mothers

The parent educators, as stated previously, held interviews at the hospital with the mothers. These interviews were designed to explain the program and gain the mother's assent to visit the home. The second step was a home visit about six weeks after birth. For those babies born before October 15th, the six-week visit was the first contact. These mothers who were willing signed permission forms, representing informed consent, in keeping with NIH procedures. Instructional visits were begun on or about the time the infant was three months old.

Half the control population (25) were also contacted and invited to participate on a "talking about your baby" basis. The remainder of the control population will not be solicited for active participation until the end of the pilot program.

Intervention Procedures

In brief, each home is visited once a week for a maximum of 40 weeks for those babies born in summer 1966 to a minimum of 18 weeks for the last baby to enter the pilot project whose birth was January 31,

1967. At the home visit, the parent educator instructs and works with the mother on no more than two exercises a week, after she has determined the ability of the baby to do the exercises in a given series. The parent educator completes an observation record (attached) at each visit.

There are two control populations: one, in which no home visits are made, but who will be contacted as the baby approaches his first year for permission for testing. Based upon one experience, such permission will be readily granted. Second, the homes of the 25 families in a control group are visited about once a month by a nurse from the Health Center College of Nursing, who talks in general terms with the mother but provides no concrete stimulation. Assignment to these control groups was random from the general control population.

The pilot program has demonstrated the feasibility of the operation. Now, careful research utilizing the technique is the next step.

APPENDIX B

Parent Educator Statements

This baby has not progressed very well because the mother never works with him. She will tell me she is going to do the exercises but she never does. The baby tries very hard but he doesn't succeed because when I come back the week after I've given her some exercises to do, the baby seems as if he's never seen them before. He plays with the material as if they are new to him instead of doing the exercises as if he had already had the experience of doing them before. Betty Jones has stated that she would like to drop out of the project when her baby becomes 1 year of age. That is July 23, 1937. Betty has been hard to work with because she was not interested when the project began and her interest has grown less over the past year. She wishes to drop out of the project as soon as her baby is a year old and she is trying to avoid me until that time comes.

This baby does fairly well whenever I can see the mother every week. If she starts to avoid me for a few weeks she loses interest and the baby gets behind. She always says she is interested and wants to continue in the project but she doesn't have very much time with three other children in the home. They are all pre-school age, and she has quite a bit of work to do. She says that the baby in the project takes up quite a bit of her time, and this is why she gets behind, so she avoids me because she hasn't done the exercises that I've left with her.

This baby started out working in the project with her sister. The sister was very interested in the project and tried very hard to keep up with the exercises that I left with her each week. Now the sister is working and the mother is at home with the baby. The mother is not very interested and doesn't work very well with the baby. A lot of times the baby is asleep and the mother will tell me that she is not at home because she doesn't want to awake the baby. The baby is easy to work with and very cooperative. She enjoys the materials very much but the mother doesn't seem to care one way or the other, whether the baby does the exercises or not. She will listen when I explain the exercises to her and tell me that she is going to do it, but the next week she doesn't remember them, and she expects me to do the exercises with the baby to see if she has learned how to do it.

I believe Julia works with her baby but the baby is just lazy. She will look at the materials and play with them but never will she do what we want her to do. This baby will eventually get the exercises I've left with her but it takes quite a long time, longer than with the other babies that I've worked with. She doesn't seem very interested in any of the objects that I've presented to her so far. There are no toys that she particularly likes and none that she really likes to play with. She will play with just a few toys every now and then. Other times she just sits, looks,

and crawls about, not paying much attention to anything. Julia always remembers the exercises I've left with her and she even tries new things. However, she gets discouraged when the baby takes so long to do the exercises and she feels that her baby is behind every other baby in our project. I have to constantly tell her that the baby is working in the right series for her age, but she doesn't believe me because she realizes herself how long it takes the baby to do each of the exercises.

Girlean is very easy to work with: she doesn't miss very many appointments, and her baby is very cooperative. He enjoys the exercises, he enjoys the materials and most of all he enjoys his mother playing with him. The mother enjoys the project very much, and she has noticed the difference in this baby and the baby she had before him. She says that he can now do things that her other babies were doing when they were one year old, and this baby is just six months of age. Whenever she misses appointments it's because she has been called to work on her part-time job and doesn't have any way to notify me. I never mind if I have to make three or four trips to her house, because I know she would contact me if she could.

In trying to answer the five questions given us: first of all I feel that if the mothers would work with their babies every week constantly, the babies would progress much faster than they do when the mother will do the exercises one week and miss you the next week and the third week she has forgotten what she was supposed to be doing. In answering the second question - Why do you think mothers drop out? I think mothers drop out because they are not really interested in the project when it begins and as the time goes on they get tired of you coming each week and they forget their exercises and feel that you will be angry at them, so, they avoid you and eventually they just tell you that they would rather not be bothered because they don't have time to work with the baby the way they should. Some mothers that are very interested in the project have to leave the area for one reason or another and for this reason I think our project should be more widespread, within limits, of course, but I think we might reach more mothers if we expanded our area a bit more. To answer the third question, some mothers are easy to work with because they are interested in their babies and they want their babies to outdo everybody else's baby. And, the mothers that are not interested think the whole thing is silly -- that you cannot teach a three month old baby anything. Once they develop this attitude it's very hard to change their minds. They believe that babies are to be seen and played with but should not talk or anything. One of the difficulties mothers run into is that their working hours make it difficult for them to participate in the project. They feel that when they've worked all day or all night that it's very annoying to have someone come in to tell you to play with your baby. Another difficulty is this business with visitors in the home, e.g., picking the wrong day and the wrong time.

Gloria is one of my most interested and concerned mothers. She is usually on time for her appointments and never misses appointments. Progress is rapid. She doesn't seem to have any problems. Her husband is a very conscientious father and is actively involved. They both are easy to work with because of their understanding of the importance of these activities to the normal growth and development of their child.

Henrietta is somewhat like Gloria Smith. She too is concerned about her baby's growth -- mentally, physically, and socially. She sometimes misses appointments because she works in the field, but she tries not to. This baby's progress is fine. Here again is another actively involved father. He's usually home during the mornings and works at night. There seem to be no problems -- not even family problems. It's a lovely home environment. There are three other sisters and brothers.

Mrs. Jones is very concerned about her baby, however, she does work. Whenever she's not home her mother takes care of the baby or her father and she always gives me permission to work with her mother or father, whoever might be keeping the baby. Her baby is an average baby. He reacts just great because the mother takes out time with the baby and helps train and show and explain many things to it which helps the baby a great deal. I think the baby has many adequate toys. All of them go along with Mrs. Jones and her husband takes a great deal of time with the baby too when he's at home. They're not making very much money. Mrs. Jones and her husband seem to have more education than most of the mothers that I'm working with. Mrs. Jones is concerned and asks me several questions like - what can I do with my baby. She takes more interest than most mothers.

I don't think Mrs. Smith is concerned whatsoever about the baby. Most of the time when I go to the home she is there with friends listening to T.V., playing cards. She really doesn't take the time out with the baby to take the baby up and do the exercises or anything. And if I'm there working with the baby, she leaves me with the baby and goes out and talks to the neighbors or watches T.V., or whatever she's doing. I think that she feels that I'm just another person coming in, that's all. She feels this is great because many times she'll say, "come on and let's watch T.V." and tells me what's been happening in the picture. I really don't know how the baby's doing because one day I'll go in and he won't respond and then other days he might do some things. I don't think she's really working with him. I've gotten to the point where I've just about given up on her. I go in and I try to get her interested in the baby or whatever I'm doing. Maybe for a few minutes she might listen to me, but the children might come into the home and she'll go with them. I've tried every way that is possible to try and get her involved but it doesn't seem like it's working.

I think that Mrs. Smith works with the baby only when I'm there in the home. Usually there are several adults in the home and many kids there playing. With the type of language and the tone of voice that the mother uses, the baby's likely to pick up most anything. I think Mrs. Smith is somewhat a big-time person. Her friends come over and they're the party type. They just don't care what type language they use and many times I go in the home and the baby's on the floor crawling and they haven't changed the baby or anything. I think many times this makes the baby unhappy and hard for me to work with. There are about 13 in the home, with friends and children living within the home. The oldest child is 9. It gets very awkward to work because the adults all butt in and ask many questions. Many times they tell me it's very stupid. For example, when I came into the home, they said, "Well gee, who would ever have thought of the stupid idea of going and taking cans to an infant that young. What does the baby know about cans and things?" They just thought it was somewhat stupid for me to sit there and show the baby different objects, explain to the baby and do things with it. I think they're just trying to make me discouraged. They want to know who else is doing this type of work and if we're being paid and being paid by whom. I tell them it isn't their business and that is it. When I take the magazines in, usually the mother looks at the magazine one day and then the neighbors have them.

Many of the mothers drop out because of their working hours. Some of them really hate to face reality and say that they don't really have time. They'd rather just run and hide from you and then when you catch up with them they say "I just don't have time to be bothered." From the beginning when I first started to visit Mrs. Jones she told me that she didn't have time. I think she was just curious about me coming in. After she found out that I was a co-worker she was altogether different, she felt at ease. She thought maybe someone was sending me in from the health center. Many times she'd ask me which one of the nurses sent me in from the Med Center. Mrs. Jones is ill and I think maybe she thought I had gotten hold of her medical record or something. Sometimes I think the mothers really don't have time because they do work at a certain hour. Maybe they spend most of the mornings or afternoons getting prepared for work again and getting the baby ready to go to the babysitter's and they just don't have time. Maybe when I go in the mother is just frustrated. She feels like she is being bothered because the time rushes her too much.

I don't think you can reach some of them regardless, e.g., Mrs. Smith. It's because of her attitude -- not because she's overworked. I think really if a mother's concerned about her baby whatsoever, she'll have enough time to take out a few minutes. Sometimes other people going into the family can create a problem with time. Many times you can't help from making your visits long because of the baby, but you should try not to make it a habit every week -- going in and spending the same number of minutes or hours. There is a problem with mothers not being home and not leaving messages saying when

she'd be back or where she's gone. Sometimes the mother would say she didn't get a chance to work with the baby and she was just ashamed to face me. She said that she had to go back to work, but I talked with another friend of hers and she said that this lady and her husband had a run-in and she didn't want to face me because of that reason.

Most of my mothers feel that I'm just a friend. They didn't actually say that they resented it in any way, but I could tell from the expressions of many of them when I said a supervisor would come out to give the six-months test, that there was just a change of expression on their faces altogether. They ask what are we supposed to do or how am I supposed to dress the baby and if they're coming in at a certain time because I have to do this or that. They have one excuse after the other. They feel kind of nervous and scared. I talked with one after Don left. She wanted to know if her baby really did what we wanted it to do or not. At one time she thought that I was telling her the truth. She'd say he didn't do too good -- "I'm really ashamed." All the times that he wouldn't show off this baby was participating.

Mrs. Smith is concerned about the baby even though her older children are in the home. If she doesn't have time, her older daughter does the exercises with the baby. She usually sews and works in Wilson's. There have been good results with the baby because he has more people to work with him and they have more toys and equipment in the home which really help.

During the time I was working with Mrs. Jones her baby was more active than she is now. The baby seems to be in a slight haze now because of the different ones hollering and scolding the baby, so the baby is really not responding much at all now. Mrs. Jones seems to be very interested in the project. She always seems to be concerned about the baby. When I'm in the home, she always wants to know what to do next, "May I use your toy to work with the baby till next week" or she always wants me to leave something for the baby to do. If the baby can't do something, she'll say she'll try and get her to do it more the next time. But since she's been working, the baby's just really not being worked with. I don't think Mrs. Jones at the present time is working with the baby at all. The last day I was talking with her I think really she wanted to tell me maybe she wants to drop out, but doesn't know how to tell me. I think she's afraid of hurting my feelings. Many days she'd say that she'd gone out to pick her baby up in the afternoons and the baby is not clean, she's always wet, and she's not sleeping properly. I suggested a new babysitter but she said she couldn't afford it financially. She's working in a laundry.

During my first visit with Mrs. Smith it was very hard for me to agree with Mrs. Smith on her working hours. It was also hard for me to catch her at home. Mrs. Smith is very much concerned about her baby but her working hours have seemed to become somewhat a problem for me to go into her home.

I have been having problems with finding Mrs. Smith at home and keeping appointments with her. Usually she makes appointments and never is home when I arrive. Several times I have asked her to give me a ring but she fails to do so. Whenever I call Mrs. Smith her children say that she is not at home.

Mrs. Jones is very interested in the theories and exercises.

Mrs. Smith is very enthused over the project, but there have been many rough days working with her. She moves everytime within the city and leaves no address for me to find her. Several times I have made appointments with Mrs. Smith and they have been cancelled because of her working hours.

Darlene's father is a mechanic. Her mother is an outflowing and plain spoken person. Their house is too small for the needs of this family, because they have four daughters. The house consists of the parents, four daughters, a girlfriend about 17 years old, the husband's father who lives with them -- he drinks quite heavy -- and also her father who lives with them. The friend will not stay with her divorced parents, so they are content to allow her to live with the family. This home consists of a living room with a sofa, a dining room, a kitchen, a small back porch with a washing machine, two bedrooms, and screened front porch, with city utilities. The children's and the friend's room contains two double beds and the master bedroom has one double bed and a crib. The front screened porch has a single cot on it. In all there are only two available sleeping quarters besides the two bedrooms. The husband's father is only 49 years of age but he cannot hold a job due to the fact that he does indulge in alcohol to this extent.

This household is composed of the baby, father, mother and one brother. The husband is older than his wife but this is her second marriage. She is just 21 or 22. Her first husband died when they were only married six months. She had no children by the first marriage. The house is a two bedroom, frame building. The children sleep in one bedroom and the parents in the other. There is a kitchen and also a combination living and dining area and one bathroom. She is a very good mother. She believes if you spare the rod you spoil the child. She is very interested in this project and she always takes the time to listen very attentively and she appreciates anything that you will tell her that will help her to better her children. She's also inquisitive and demands explanations. She has to have a reason why we do this if she does not understand it. But once she has this reason she goes right along and asks for more and the other day when I told her that the year was up and we would be calling and keeping in touch with her, her face just fell. And of all the mothers that I would have to give up, this is the person that would benefit most from being in contact with someone that could give her some information, because her mother had died when she was quite young.

She needs someone to confide in and not so much confide in us to tell experiences she would like to have. She's always asking me for books.

This family is composed of the parents, the baby and one sister. They live in a small trailer about 8 X 30, on the cemetery premises on the Farnsworth Road. This road is just off the Newberry Road. This house is always topsy-turvy. Things are thrown hither and yon. Once in a while she'll clean up, but she cleans up and makes no effort to make her children keep it this way or she herself keep it this way. If they spill something on the floor, she doesn't even bother to get up and wipe it up. She is strictly a housewife but she does want to go to work. She says she has to, to help pay bills. She really is needed with her children because they are both small and they would have to have a babysitter. Anything that she would make would certainly go to pay the babysitter. Her husband is in construction work and he is also the caretaker of the cemetery. He, now the cemetery and keep it looking neat for their rent, water, and lights. Her language about moral standards indicates a loose attitude. She is an outflowing person in speech and she is a likeable person -- easy to get along with. I do not feel that she works with Barbara to any great extent because she does not realize the value of this project. She just doesn't.

This family is composed of mother, brother, sister and baby. The mother is a divorcee who had Robert after she was divorced from her husband, by another man. Her husband had divorced her to marry a woman he had gotten in a family way. Since the divorce, she and her children live with her parents and two younger brothers. Mrs. Smith is a very likeable person and very attractive. Kay is unsettled and finds her obligations a burden. Kay has had several boyfriends since the time the project began. Her ex-husband gives \$20 a week for the two children. At present, he and his second wife are separated, and he visits the children often. Kay is still fond of him. She is now working at the Sunnyland Training Center. Her mother told her that they would just have to get out. Everybody was bringing their children there and she said Kay would have to get out and get a job and get a babysitter to take care of her children and start using her time constructively. Her mother is a hard working person but she also has five other children. She has six children, one son married, two daughters that are married and living with their husbands, and Kay that has been married and is now divorced. Kay is next to the two younger boys which are teenagers. Kay does not work with Robert because her boyfriends seem to come at any time of the day and she will work for a little while, but it is off and on. Maybe now that we have the babysitter back for a while she will work with him. I think the reason Robert has progressed so in this series is that there are quite a few people handling him and he gets moved around.

This baby lives with her parents, and two brothers. The mother is also expecting another child in October. They moved last month from the small house where they were living in Alachua to Lake Butler, into a three bedroom house. This house has six rooms and a bath and a porch. Both the husband and wife are interested in their children. She went along with the project and would work with Pat until she becomes heavy with this baby that is due to be born soon. She is sickly. She could not take birth control. They could not use the other things on her because it seemed to do something to the blood if they put a ring in the womb or anything, so she is not able to prevent child birth. She also has high blood pressure and she's a short, stout girl -- but a very likeable person. Her husband works in Alachua at Copelands and he commutes to Lake Butler. He drives back and forth. They moved to Lake Butler so that they could get a large enough house for their growing family. They try to supply their children with the material things they missed as children. They will even go into debt to do this. The husband is nice looking, about 6', fair complected, blonde, but he is tongue-tied and this keeps him from advancing in his job. I do not know whether Mrs. Smith will be continuing with the project after a year or not, due to the fact that she says Mr. Smith thinks it will be entirely too much for her with four children under six.

Ronny Jones is an only child and he lives with his parents. They are quite young, but they are devoted. Mr. Jones is a clerk at Robertson's grocery. Their income by budgeting will meet the needs of everyday life but this is about all. Ronny is a mature child for his age, and he is progressing quite rapidly, as his mother spends a lot of time with him since he is an only child. I think that Mr. Jones works with Ronny and she is certainly interested in this project.

Pricilla Smith has two brothers and one sister. Two of the children are by this marriage but two are by her first marriage. Mr. Smith is an excessive drinker. His drinking comes before the other family needs. The three older children are very aware of their father's drinking. They make remarks and tell you about it constantly, whenever you are at their house. Mrs. Smith worked at Copelands until about five weeks ago. She is now staying at home and keeping her children. She feeds her children, but she is not a good housekeeper. However, she is a devoted mother. She is concerned about the type of provider Mr. Smith is. He will tell her he is not going to drink anymore like most people of this type do, and then he doesn't even know he has come home in the middle of the night and got up and left again because he has drunk so heavily. Mrs. Smith works with Pricilla but not day after day. I am sure it is off and on because Pricilla has continued to progress but it's very slow for the amount of taking care of her that Mrs. Smith does. She holds her in her arms but when she could be teaching her the series or other things she is content to just sit in the rocker and rock or be next door talking to the neighbors.

5

Anthony Smith lives with his parents and a brother and sister. Mr. Smith is a mechanic at the University of Florida and Mrs. Smith is a housekeeper. She is a good mother, wife, and keeps her house picked up quite tidily. She freezes and cans all available food for later use. Mr. Smith was injured in an accident a couple of years ago, leaving him with a limp. This family has above the low-class background. They have family that teach school, but this accident was what put them in this income bracket. He owned his own filling station and mechanic shop when he was injured, and then he was bed-ridden for some time so that when he went back to work, he could not do the heavy lifting and he was compelled to seek employment of a different type. They were in court about this accident and it was settled in their favor but at present they are waiting for it to be settled finally. Anthony has not progressed in this program as much as I had hoped for. He is a large baby with a long frame. He is also a fat baby and his hands are very fat and this has kept him from grasping and holding on. He reached the age of six months before he really started using his hands, where most of the other babies in the project have been using their hands before this.

Deaton Jones has one sister and one brother. Mrs. Jones is strictly a housekeeper and a good mother. Mr. Jones owns a flying instruction school at the Gainesville Airport and is a flyer in the Navy Reserve. This family is very average and they are good Catholics. Mr. and Mrs. Jones both came from broken homes. They each were raised without their father. Since then, Mr. Jones' mother has remarried and since his father's death -- he died a few years ago -- she has remarried and now has a young daughter by her second marriage. Mr. Jones has over \$10,000 invested in this business. Mrs. Jones told me last week when I was there. Deaton is a very small child, in fact, this family is small in stature -- all of them. The husband just got into flight school, because if he'd been any shorter he would have never made it. Deaton has progressed but not as rapidly as I had hoped. This is the only baby, that is in my babies, that has been nursed by their mother. She has nursed all three of the children and she finds this very desirable, easier, and she likes it. She doesn't understand why other mothers do not like this closeness with their children. When I first met Deaton, he communicated with his mother quite a bit. He would just talk to her sitting in her arms. But at this time I have not heard him make a sound other than laugh since a good many weeks.

I feel that our personalities are the greatest thing that affects the babies in this project -- maybe due to the way that we project them into other people's viewpoints. We have to be very careful and let our personalities go into the background sometimes, especially when we do not feel the same way a mother does about some certain thing.

I think that mothers drop out because of many reasons. It could be personal, too much work, feel defeated because they cannot get to everything, not really able to coordinate their time. But I think also a lot of our dropouts could be due to conflict with the trainers. By this I mean that we have off days and maybe it might be the mother's off day at the same time, and unless you are able to put your personality into the background and see it from the mother's light and maybe console her, you lots of times can have a dropout, especially if she's had a hard morning and you are just the climax to what makes everything go wrong.

Mrs. Jones is the type of person that if she does not understand anything she will ask you. But there are so many people that will not ask you due to the fact that they either feel that it will degrade them or cause them to feel much as you do. I think that what makes a mother easy to work with is whether she will accept things as you speak them, take them for granted or whether she wants reasons for doing certain things.

This was a very interested mother when I first interviewed her at the hospital, but she did indicate to me that she would be leaving right away and going to Ft. Myers within about 3 months, after I told her I would like to meet her at her home. After she left the hospital and went home I made an appointment to meet her at home on a visit. After we talked for an hour she decided to try and make other changes and try to stay here for this project. She was very interested and thought it was the right program for her baby. She said she would contact me later and let me know if she could work out something wherein her baby could still be in this project. I then waited for a month and checked back with her. This time I had great news. She had insisted on moving here to Archer for the program. She and her husband both moved here from Ft. Myers. I'm not sure that all of it was the program, but I do think that it played a part. This I enjoyed most of all, because I felt that I had really encouraged this mother about the project. After being in the project this mother was so interested that after we started she looked forward every week for my coming in, and I do feel very earnestly that this mother is working with her baby. From time to time we would talk about the theories. The mother would always ask questions about the theories, letting me know she was interested in what she should do about the theories for the baby. After we did the testing on her baby she was delighted to know that the baby would do as much for the staff member as she would do for herself and me. I enjoyed very much working with Mrs. Smith and I think she enjoyed very much the improvement of the baby. She is now working, but she is still interested in how and in what ways she can get me to cooperate with her so that she may be home on days that she has off for me to continue work with her baby. We tried working with the Grandmother, but the baby doesn't respond as well for the Grandmother as it does for the mother. So I have arranged to come on the days that she is

off even though it might interfere with other times that I am supposed to be somewhere else. But I do hold back this time for them because she is very interesting and I enjoy it very much.

This is a mother that lives in Williston and another interesting mother. Even though I did know her when I interviewed her, she told me that she would go along with the project. After we started working with the baby I could tell from the expressions on her face and the ways that she moved that it was the theory that she enjoyed most of all. Now each week that we go in she finds herself let down if the baby can't do the series when I arrive, but still I encourage her. When the baby wouldn't do as well as it did the week before I tell her there are times that even the trainers feel that we aren't doing a good job when the babies don't do the series the day that we go back. This is a very interesting and responsive baby. He also is trying many new things that we haven't done in the project and I think she feels the project has much to do with it and she was another mother that looks forward to my coming each week, and their appointments are always the same.

This is a 16 year old mother and this is her first baby. She lives with her mother. She is very interested in the project. When I first interviewed her in the hospital she was very young, and I feel that she felt wonderful and anything concerning her baby was a great experience for her because it was her first child. After we got started with the project she felt it was my responsibility to work with her baby because of my being her sister. But afterwards I let her know that I couldn't work with her baby and continue to be in the project because of the six month testing. If I went into the home and worked with the baby and a staff member came in and tested the baby it would probably not respond to the staff member because of my working with him, so I explained to her how important it was for the mother to work with her baby and then she seemed to cooperate with me very well and I haven't had much trouble out of her since.

This is another 16 year old mother and this is her first child. She's the mother that I didn't feel was interested after we started with the project. She also felt it was my responsibility, and she looked forward to telling the baby that the teacher was coming even though I explained to her each time that I was not his teacher and just his trainer. Afterwards she started to miss her appointments and would go out of town or she wasn't at home. Then I sorta talked with her on the last time that I visited with her and I told her how important it was for her baby to be in the series and to do the series, and for her to get interested in it. After talking with her and showing her how important it was, she then thought herself that it was her responsibility and she is now a very interested mother and looks forward to my visits every week.

This is a mother of 16 and didn't seem to be interested in the project, but after we started in the series she then seemed to get more interested. She is also a mother that lives alone, and seems to have more problems than any mother I have ever worked with, but still whenever I went in it would seem to me that she did try to at least work with the baby, even if the baby didn't do the series. This one was doing very well until a few months later when her sister-in-law came up and moved in with her. This I think sorta discouraged her and she would always make an excuse whenever I went in. She would always say that the baby can do them, but she never would make any move to let me see the baby do them while I was there. So I told her it was my duty to see what the baby could do and couldn't do. Afterwards, she would start missing her appointments. This I sorta hated, because this baby I felt needed it most of all. After we got back to the series, the baby then seemed to be getting ill, and each time that I would go in the baby would always cry. So I explained to her and tried to encourage her to get the baby to see a doctor. Afterwards I still don't know if she ever did this because even when we were trying to do the testing the baby still cries and feels like it shouldn't be left alone or it didn't want the mother to leave him and so we haven't been able to work with the baby since. But I still am trying very hard to get her to see if there is anything wrong with her baby and to find out the reason it cries so much, but it's a hard problem. I'm not sure and I'm not wanting to say that she hasn't seen a doctor because she says she has, but there seems to be no improvement in what seems to be wrong with the baby and I feel like if there is anything that I can do that I'll be willing to do this to help her baby get better or find out what's wrong with it.

This mother lives in Williston, and this is her first baby. She happened to be at her sister-in-law's home the day I was conducting an interview there. She then had not yet had her baby but was expecting it soon. When I went for my monthly visit with the sister-in-law, she was there and asked me if she could get into the project. At the time I told her I didn't know because they were selecting mothers from the medical center, and the babies that they had selected were the ones we were working with. She often tells me how lucky she was because she was one of the mothers chosen to work on the project. She was thrilled with my coming to work with her baby. After we started with the series she did everything in her power to try and make the exercises come out well. I explained to her that we could push the baby too much and this would be a disadvantage. Then she let the baby go on its own, and I felt that part of the series wasn't being done. So I explained to her that we did want her to work with the baby, but work to a certain extent. I think she understood very well because now this is one of the happiest babies in the project that I'm working with. I think this baby will be a great success. The mother feels that this project has done a lot for her baby and after six-months testing, there wasn't anything this baby couldn't do. That made me feel good even though I know the babies weren't being judged on how good they are, but I still enjoyed it.

This woman is one of the youngest mothers that I'm working with in the project. At first I worked with the mother and the baby, but then the mother got a job and I had to work with the babysitter. This was hard because the babysitter kept other children, and she really didn't have time to notice what I was teaching her because often she would have to stop to see about the other children. This didn't last long because the mother's sister started keeping the baby which is in the same home as the mother and baby live in. It's much easier working with the Aunt. She seems very concerned and interested in what I'm doing and what I'm teaching her to teach the baby. Sometimes I think she's confused because she often asks me about health problems concerning the baby, and I try to explain the best I can that what I'm doing has nothing to do with health but it's in a sense educating the baby. The baby is progressing very well. She is one of the babies that was slightly slow at the beginning in learning the exercises. Sometimes I feel that the Aunt doesn't work with the baby on all of the exercises that I teach, but the baby does learn them. I find out in conversations when I go back that the Aunt has tried the exercises with the baby. Sometimes when I visit the home the Aunt and the baby are sleeping, but when I go back I always find them there, with the exception of a couple of times. This baby is a very spoiled baby because the Aunt doesn't work and several times when I've gone there we had to wait until the baby is ready to play. As I said before, this baby is progressing well, I enjoy working with the Aunt, and I think the project has helped this baby progress faster than she would have had she not had this training.

Some mothers are easy to work with and some mothers are not. I think the reason for this is because people are different. Women are different. They have different attitudes. They don't think alike, and they don't act alike. Some of them are concerned and some are not. Some just don't want to learn anything new, and they just don't care. So this is the way I would sum up the statement that some mothers are good to work with and others are not.

One of the difficulties confronting the mothers is that they have to work, and this makes it hard for them to participate in the project. They have other children that have to be cared for, and this also makes their participation in the project difficult.

A lot of times mothers say they don't have time. They don't mean this. They just don't want to have the time; they don't want to be bothered, or they have something else they want to do at the time we make the visit. They'll say anything so we'll leave sooner.

APPENDIX C

HOW I SEE MYSELF SCALE AND ROTTER SOCIAL REACTION INVENTORY

HOW I SEE MYSELF SCALE

Nothing gets me too mad 1 2 3 4 5

I don't stay with things and finish them 1 2 3 4 5

I'm very good at drawing 1 2 3 4 5

I don't like to work with others 1 2 3 4 5

I wish I were smaller (taller) 1 2 3 4 5

I worry a lot 1 2 3 4 5

I wish I could do something with my hair 1 2 3 4 5

People like me 1 2 3 4 5

I've lots of energy 1 2 3 4 5

I am ignored at parties 1 2 3 4 5

I'm just the right weight 1 2 3 4 5

Women don't like me 1 2 3 4 5

I'm very good at speaking before a group 1 2 3 4 5

My face is pretty (good looking) 1 2 3 4 5

I'm very good in music 1 2 3 4 5

I get along well with teachers 1 2 3 4 5

I don't like teachers 1 2 3 4 5

I don't feel at ease, comfortable inside myself 1 2 3 4 5

I don't like to try new things 1 2 3 4 5

I have trouble controlling my feelings 1 2 3 4 5

I did well in school work 1 2 3 4 5

I get mad easily and explode

I stay with something till I finish

I'm not much good in drawing

I like to work with others

I'm just the right height

I don't worry much

My hair is nice looking

People don't like me

I haven't much energy

I am a hit at parties

I wish I were heavier (lighter)

Women like me a lot

I'm not much good at speaking before a group

I wish I were prettier (good looking)

I'm not much good in music.

I don't get along with teachers

I like teachers very much

I feel very at ease, comfortable inside myself

I like to try new things.

I can handle my feelings

I didn't do well in school

I want men to like me	1 2 3 4 5
I don't like the way I look	1 2 3 4 5
I don't want other women to like me	1 2 3 4 5
I'm very healthy	1 2 3 4 5
I don't dance well	1 2 3 4 5
I write well	1 2 3 4 5
I like to work alone	1 2 3 4 5
I use my time well	1 2 3 4 5
I'm not much good at making things with my hands	1 2 3 4 5
I wish I could do something about my skin	1 2 3 4 5
Housework isn't interesting to me	1 2 3 4 5
I don't do my housework well	1 2 3 4 5
I'm not as smart as the others	1 2 3 4 5
Men like me a lot	1 2 3 4 5
My clothes are not as I'd like	1 2 3 4 5
I liked school	1 2 3 4 5
I wish I were built like others	1 2 3 4 5
I don't read well	1 2 3 4 5
I don't learn new things easily	1 2 3 4 5

I don't want men to like me
I like the way I look
I want other women to like me
I get sick a lot
I'm a very good dancer
I don't write well
I don't like to work alone
I don't know how to plan my time
I'm very good at making things with my hands
My skin is nice looking
Housework is very interesting
I do a good job at housework
I'm smarter than most of the others
Men don't like me
My clothes are nice
I didn't like school
I'm happy with the way I am
I read very well
I learn new things easily

Name _____ Age _____ Usual Job _____
School grade completed _____ No. of Children _____ Trainer _____

SOCIAL REACTION INVENTORY

Instructions

This is a questionnaire to find out the way in which certain events in our society affect different people. Each question has two choices, called a or b. Please choose the one of each pair (and only one) which you more strongly believe to be the case as far as you are concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief; obviously there are no right or wrong answers.

For each question, after I read both remarks to you, put a circle around a if you believe remark a more strongly; put a circle around b if you believe remark b more strongly. After each question tell me when you have made your choice. Then I will read the next one. Feel free to ask me to read any question over again. Be sure to print your name and other information asked for at the top of the page. Please do this now.

In some instances you may discover that you believe both remarks or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you are concerned. Also try to respond to one question at a time when making your choice; do not be influenced by your previous choices. REMEMBER, In each case, choose the remark which you personally believe to be more true.

I more strongly believe that:

1. a. Children get into trouble because their parents punish them too much.
 b. The trouble with most children today is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.
 b. People's troubles result from the mistakes they make.
3. a. One of the biggest reasons why we have wars is because people don't take enough interest in government.
 b. There will always be wars, no matter how hard people try to prevent them.
4. a. In the long run people get the respect they deserve in this world.
 b. It is the sad truth that, an individual's worth often passes without being recognized no matter how hard he tries.
5. a. The idea that teachers are unfair to students is "hot air."
 b. Most students don't realize how much their grades are influenced by accident or chance.
6. a. Without the right breaks one cannot be a good and able leader.
 b. Able people who fail to become leaders have not taken advantage of their opportunities.
7. a. No matter how hard you try, some people just don't like you.
 b. People who can't get others to like them, don't understand how to get along with others.
8. a. What a person is born with plays the biggest part in determining what they're like.
 b. It is one's experiences in life which determine what they're like.
9. a. I have often found that what is going to happen will happen.
 b. Putting trust in fate has never turned out as well for me as making a plan to take a certain course of action.

10.
 - a. In the case of the well prepared student there is hardly ever such a thing as an unfair test.
 - b. Many times test questions tend to be so different from class work, that studying is really a waste of time.
11.
 - a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
 - b. Getting a good job depends mainly on being in the right place at the right time.
12.
 - a. The average citizen can have an influence in government plans.
 - b. This world is run by the few people in power, and there is not much the little guy can do about it.
13.
 - a. When I make plans, I am almost certain that I can make them work.
 - b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad luck anyhow.
14.
 - a. There are certain people who are just no good.
 - b. There is some good in everybody.
15.
 - a. In my case, getting what I want has little or nothing to do with luck.
 - b. Many times we might just as well decide what to do by tossing a coin.
16.
 - a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
 - b. Getting people to do the right thing depends upon being able, luck has little or nothing to do with it.
17.
 - a. As far as world affairs are concerned, most of us are pushed around by forces we can neither understand, nor control.
 - b. By taking an active part in government and social affairs the people can control world events.
18.
 - a. Most people don't realize the point to which their lives are controlled by accident and chance.
 - b. There is really no such thing as "luck."
19.
 - a. One should always be willing to admit his mistakes.
 - b. It is usually best to cover up one's mistakes.

20. a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.
21. a. In the long run the bad things that happen to us are made up for by the good ones.
b. Most troubles are the result of lack of know-how, lack of knowledge, being lazy, or all three.
22. a. With enough effort we can clean up dirty government.
b. It is difficult for people to have much control over the things government leaders do in office.
23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. The harder I study the better grades I get.
24. a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.
25. a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important part in my life.
26. a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people -- if they like you, they like you.
27. a. There is too much emphasis on athletics in high school.
b. Team sports are an excellent way to build character.
28. a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.
29. a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run the people are responsible for bad government on a national as well as a local level.

APPENDIX D

WEEKLY REPORT -- PARENT EDUCATOR HOME VISIT

~~Weekly Report~~ ~~Parent Educator Home Visit~~

Observer _____ Date Last Visit _____

Mother _____ Mother's Number _____

Date _____ Visit Number _____

Time in Minutes _____

Was this a TEST visit? Yes _____ No _____
If yes, which one? _____ 6 Month, _____ 12 Month,
_____ 18 Month, _____ 24 Month.

CODE: 1. M= Mother, 2. F= Father, 3. S= Sibling (Brother and/or Sister), 4. GM= Grandmother, 5. A= Aunt, 6. BS= Baby Sitter, 7. O= Other, 8. Nobody.

1. People in the home

A) With whom did you work? M F S GM A BS Other _____

B) Is this the person you usually work with in this home?
1. Yes _____ 2. No _____

C) Is this the person who cares for the baby most of the time? 1. Yes _____ 2. No _____

D) How many adults were present at least part of the time in the room in which you worked (besides the person with whom you worked)? _____

E) How many children were present at least part of the time in the room in which you worked (besides the baby)? _____

F) Who was present all the time (include the person with whom you worked)?
M F S GM A BS Other _____ Nobody _____

G) Who was present more than half the time, but not all of the time (include the person with whom you worked)?
M F S GM A BS Other _____ Nobody _____

H) Who was present less than half the time (include the person with whom you worked)?
M F S GM A BS Other _____ Nobody _____

2. General Information

A) How much activity was in the room in which you presented the exercises?

1. Nothing was going on besides the training_____
2. Other activities were going on but did not attract the attention of the baby_____
3. Other activities in the room often pulled the baby's attention away from the training_____
4. There was such a great deal of activity in the room that it made it difficult to present the exercises_____

B) Where was the baby when you arrived?

1. Babyseat or high chair_____
2. Being held_____
3. Crib, sofa, bed or playpen_____
4. On floor_____
5. Other_____
6. Don't know_____

3. Series Information

A) How many exercises were successfully completed since last time?_____

List exercises: _____,
_____,
_____.

B) Which new exercises were presented and how many times did you repeat the instructions for each new exercise to the mothering one?

Exercises Presented	Times Repeated Instructions								
	1	2	3	4	5	6	7	8	9
_____	1	2	3	4	5	6	7	8	9

C) How did the mothering one react to your instructions?

1. Looked at you while you were talking, and/or asked questions._____
2. Did other things while you were showing her how to do the exercise (examples of other things: straightened baby's clothes, looked around the room, did housework)_____
3. Walked out of the room while you were explaining things to her_____
4. Refused to do an exercise_____
5. Laughed at and/or scoffed at instructions_____
6. Other_____What?_____

D) Mothering one's ability to repeat exercises:

1. Could repeat exercises the trainer had explained to her_____
2. Could do part of the exercise by herself but needed the trainer's help_____
3. Couldn't repeat exercises the trainer had explained to her_____

E) What was the child's response to objects used?

1. Did not look at or any way indicate interest in the objects _____
2. Glanced at, and held objects briefly but did not explore them _____
3. Played with materials when presented, but lost interest in them after a brief reaction _____
4. Kept up interest in each item presented _____
5. Didn't want to give up materials _____

F) When the mothering one goes over last weeks exercises with her child she:

1. Doesn't know what she's doing _____
2. Knows what she's doing _____

G) When the mothering one goes over last weeks exercises with her child she:

1. Tries them on the child more than once if it doesn't go well the first time _____
2. Gets discouraged or is satisfied after doing them once even if it doesn't go well the first time _____
3. Does them more than once even if it goes very well the first time _____

H) How many interruptions were there during training that made the mothering one stop the exercise for a time?

- None _____, 1 _____, 2 _____, 3 _____, 4 _____, 5 _____, More _____

I) What kinds of interruptions were there?

1. Mothering one had to care for another child _____
2. An adult wanted something _____
3. The phone rang _____
4. Visitors came _____
5. The baby had to be fed _____
6. The baby want to sleep _____
7. Other _____
8. None _____

J) What other types of activities were presented by the trainer to the mothering one?

- | | |
|-------------------------|----------------------------|
| 1. Songs _____ | 4. Rhythm Games _____ |
| 2. Nursery Rhymes _____ | 5. Other _____ What? _____ |
| 3. Toy Making _____ | 6. None _____ |

K) Check if you observed:

1. Homemade toys around the house _____
2. Mobiles hanging by baby's bed _____
3. Mothering one using songs or games you showed her _____
4. Other _____
5. None of the above _____

4. Baby's Health and Development

A) Did the mothering one say the baby was sick?

1. She said the baby was sick _____
2. She said the baby was not sick _____
3. She did not say whether the baby was sick or not _____

If the mothering one said the baby was sick, explain:

B) Did you think the baby was sick?

1. Yes _____
2. No _____

Explain if you have a different idea than the mothering one

C) What has the baby learned to do since you saw him last in addition to the series?

1. Rolls from side to side _____
2. Sits alone for a short time without support _____
3. Crawls (creeps on hands and knees) _____
4. Walks alone _____
5. Climbs on low chair _____
6. Runs or jumps _____
7. Climbs to a stand on chair _____
8. None of the above _____

D) How many clear words does the baby use?

1. Makes sounds, but no clear words _____
2. Babbles, but no clear words _____
3. 1 word _____
4. 2 or 3 words _____
5. 4 or 5 words _____
6. 6 to 9 words _____
7. 10 to 14 words _____
8. 15 to 20 words _____
9. More than 20 words _____

5. Social Information

A) When mothering one is in the room the child:

1. Watches her _____
2. Tries to get to her _____
3. Goes on as if mothering one wasn't in the room _____
4. Tries to get her attention _____
5. Other _____

B) When mothering one comes near the child he:

1. Frowns _____
2. Watches her _____
3. Laughs _____
4. Cries _____
5. Smiles _____
6. Vocalizes _____
7. Reaches for her _____
8. Ignores her _____
9. Other _____ What? _____

6. Verbal Information.

A) To what extent do people talk to the baby?

1. No one talks to the baby _____
2. The one working with the baby talks to the baby about things with which they are working _____
3. The one working with the baby talks to the baby about things besides those with which they are working _____
4. People other than the one working with the baby talk to the baby _____

B) Who talks to the baby most of the time (more than half the time)

	M	F	S	GM	A	BS	Other	Nobody

How people talk to or about the baby:

- | | M | F | S | GM | A | BS | Other | Nobody |
|---|---|---|---|----|---|----|-------|--------|
| C) Look directly into his face | | | | | | | | |
| D) Talk about him as though he were not there | | | | | | | | |
| E) Talk sounds rather than words (ex: coo, goo) | | | | | | | | |
| F) Talk words rather than sounds | | | | | | | | |
| G) Their tone of voice sounds soft and loving | | | | | | | | |
| H) Their tone of voice sounds cross and angry | | | | | | | | |
| I) Use the baby's name (or nickname) when speaking to him | | | | | | | | |
| J) Repeat sounds the baby makes in a questioning way | | | | | | | | |
| K) Interpret to others what the baby says | | | | | | | | |
| L) Listen to the baby when the baby talks | | | | | | | | |
| M) In a few words, order or tell the baby to do or to do things | | | | | | | | |
| N) Explain and describe things when talking to the baby | | | | | | | | |
| O) How many words are there in most of the sentences spoken to the baby by the mothering one? | | | | | | | | |
| 0 1 2 3 4 5 6 7 8 9 | | | | | | | | |
| Give two sentences used by mothering one while talking to the baby | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

7. Rewards

- | | M | F | S | GM | A | BS | Other | Nobody |
|---------------------------|---|---|---|----|---|----|-------|--------|
| A) Learning something new | | | | | | | | |
| B) Eating all his food | | | | | | | | |
| C) Sharing his belongings | | | | | | | | |

	M	F	S	GM	A	BS	Other	Nobody
D) Telling his mother he has to use the potty: using the potty								
E) Smiling at adults								
F) Doing what he is told to do								
G) Other								
When the baby pleases the person he is:								
H) Hugged								
I) Kissed								
J) Smiled at								
K) Petted								
L) Told he was good in approving tone of voice								
M) Given some reward (candy or toy)								
N) Other								
O) The number of times baby was rewarded while observer was present: 0 1 2 3 4 5 6 7 8 9 or more								

8. Punishment

	M	F	S	GM	A	BS	Other	Nobody
The baby is punished when he:								
A) Crys								
B) Gets angry								
C) Has temper tantrums								
D) Gets dirty (clothes, hands, face)								
E) Whines								
F) Hits mother								
G) Hits siblings								
H) Puts himself in danger								
I) Destroys or is about to destroy								
J) Is messy while eating								
K) Other								
The person punishing the baby:								
L) Tries to reason and explain to him								
M) Removes him from situation								
N) Raises voice toward baby								
O) Threatens with spanking or slap								
P) Shakes him								
Q) Pinches him								
R) Pulls his hair								
S) Actually slaps or spansks								
T) Puts him in place away from others								
U) Makes fun of him before others								
V) Other								
W) The number of times baby was punished while observer was present: 0 1 2 3 4 5 6 7 8 9 or More								

9. How adults act towards child (when it is not a reaction to something the child has just done):

	M	F	S	GM	A	BS	Other	Nobody
A) During exercises encourages child								
B) During exercises discourages child								
C) Calls to child for his/her attention								
D) Picks up child								
E) Tells child what's expected of him/her								
F) Says/does something pleasant to child								
G) Says/does something unpleasant to child								

10. Missed Appointments and Delays

A) Was the beginning of training delayed today?
Yes _____ No _____

B) If yes, Why? Because the mothering one wanted to:

1. eat _____	6. Finish talking with friends or relatives _____
2. Feed the baby _____	7. Care for older children _____
3. Do housework _____	8. Let the baby sleep _____
4. Dress the baby _____	9. Other _____
5. Get dressed herself _____	

C) Did you have to make more than one trip to the house before you got to see the mothering one for this visit?
1. Yes _____ 2. No _____

If yes, answer the following:

D) How many trips did you make? _____

E) Did the mothering one leave a message for you on any of the trips
1. Yes _____ 2. No _____

F) When you finally got to see the mothering one:
1. She said nothing about missing her appointment _____
2. She gave a confusing explanation _____
3. She gave an understandable explanation _____

APPENDIX E

PERMANENT REPORT -- PARENT EDUCATOR HOME VISIT

Permanent Report - Parent Educator Home Visit

Baby's Name _____
(Last Name) (First Name)

Observer _____

Birth Date _____

Sex _____

Mother's Name _____
(Last Name) (First Name)

Number _____

Address _____

Telephone _____

CODE: 1. M = Mother, 2. F = Father, 3. S = Sibling (brother and/or sister)
4. GM = Grandmother, 5. A = Aunt, 6. BS = Baby sitter, 7. O = Other

1. Members of Household (who live in house more than ½ the time)

NAME	AGE	RELATIONSHIP TO BABY	JOB	YEARLY SALARY	LAST SCHOOL GRADE COMPLETED
A.					
B.					
C.					
D.					
E.					
F.					
G.					
H.					
I.					
J.					

2. People Living Outside Household Who Share Care of Baby:

NAME	AGE	RELATIONSHIP TO BABY	JOB	LAST SCHOOL GRADE COMPLETED	% OF BABY CARE DONE
A.					
B.					
C.					

3. Neighborhood

- A. The house is in the;
1. city_____ 2. country_____ 3. town_____ 4. other_____
- B. The outsides of the nearby buildings are:
1. clean_____ 2. not clean_____ 3. in need of repair_____
- C. The roads are easy to drive on:
1. yes_____ 2. no_____
- D. The roads are difficult to drive on because:
1. it's hard to see what's down the road_____
2. It is too narrow_____
3. too many cars are parked_____
4. there are many bumps, holes or other obstacles_____
5. It's unpaved_____
6. other_____ What?_____
- E. The nearest houses are:
1. close by_____ 2. within sight_____ 3. out of sight_____
- F. The houses of the neighborhood are on:
1. small lots_____ 2. large lots_____
- G. The neighborhood is mostly:
1. residential_____ 2. business_____ 3. farming_____

4. Family Home

Outside

- A. The house is:
1. clean_____ 2. not clean_____ 3. in need of repair_____
- B. The family lives in a/an:
1. apartment_____ 2. rooming house_____ 3. one-family house_____
4. trailer_____ 5. other_____ What?_____
- C. The house has yard areas in the:
1. front_____ 2. sides_____ 3. back_____ 4. none_____

Inside

- The house has () in number)
- | | |
|-------------------------|-----------------------------|
| D. _____ living room | G. _____ bedroom(s) |
| E. _____ kitchen(s) | H. _____ enclosed porch(es) |
| F. _____ dining room(s) | I. _____ other - What?_____ |
- J. All together there are _____ rooms.
- K. The walls, ceilings and floors are:
1. clean_____ 2. not clean_____ 3. in need of repair_____
- L. The house is kept:
1. neat_____ 2. not neat_____ 3. clean_____ 4. not clean_____

The house contains: (In useable condition)

- M. 1. running water _____
 2. indoor toilet _____
 3. hot water heater _____
 4. washing machine _____
 5. phone _____
 6. car _____
 7. other electric appliances _____
 8. ice box _____

- N. 1. gas stove _____
 2. electric stove _____
 3. wood stove _____
 4. electric lights _____
 5. oil lights _____
 6. refrigerator _____
 7. kerosene lamp _____
 8. other _____
 What? _____

The house is heated with:

- O. 1. gas heater _____
 2. wood stove _____
 3. no heating available _____
 4. space heater _____
 5. fireplace _____

6. kerosene heater _____
 7. electric heater _____
 8. central heat _____
 9. circulator _____
 other _____ What? _____

P & Q. The home furnishings include:

- P. 1. beds _____
 2. sofa _____
 3. cushioned chairs _____
 4. rugs _____
 5. linoleum or tile coverings _____
 6. chests of drawers _____
 7. pictures _____
 8. dining table _____
 9. dining chairs _____

- Q. 1. storage closets _____
 2. shades or venetian blinds _____
 3. curtains _____
 4. window screens _____
 5. lamps _____
 6. kitchen chairs _____
 7. kitchen table _____
 8. straight chairs _____
 9. small tables _____

R. How many sleeping places are there? _____

5. Protection from dangers

- A. The immediate neighborhood has the following dangers to health or safety:
 1. railroad tracks _____
 2. abandoned buildings _____
 3. heavy traffic _____
 4. caves, deep holes, sharp rocks _____
 5. unfenced bodies of water _____
 6. uncovered trash _____
 7. snakes or other animals _____
 8. poisonous plants _____

B. Types of accidents in the home:

1. falls (inside and out) _____
 2. poisonings (drinking detergents, etc.) _____
 3. deep cuts _____
 4. animal bites _____
 5. burns _____
 6. other _____ What? _____

C. The family home has the following dangers to health or safety:

1. jagged objects _____
 2. little protection from rain _____
 3. little protection from cold _____
 4. fire traps (faulty wiring or heating methods) _____
 5. spoiled food _____
 6. uncovered garbage _____

5. continued

- D. One or more of the family has talked about in neighborhood:
1. child molesters ____ 2. burglars ____ 3. drunks ____

6. Family living patterns

General Daily Activities

- A. Most of the time the family eats:
1. together ____ 2. in groups ____ 3. one at a time ____
- B. There is enough food for each person:
1. yes ____ 2. no ____
- C. Meals are usually:
1. cooked ____ 2. cold ____
- D. The mother is (check one)
1. married ____ 2. single ____ 3. divorced ____ 4. remarried ____
5. separated ____ 6. deserted ____ 7. widowed ____
- E. Is mother caring for children other than her own?
1. yes ____ 2. no ____
- F. How many ____

Sleeping arrangements: CODE: M = Mother, F = Father, B = Brother
S = Sister, GM = Grandmother
GF = Grandfather, A = Aunt, U = Uncle
O = Other

- G. The total number of rooms used for sleeping is: ____

		1	2	3	4	5	6	7	8	9
		M	F	B	S	GM	GF	A	U	O
Who sleeps in:	H. bedroom 1									
	I. bedroom 2									
	J. bedroom 3									
	K. bedroom 4									
	L. kitchen									
	M. living room									
	N. other									

- O. Does the baby have a separate place to sleep?
1. yes ____ 2. no ____
- P. If no, whom does he sleep with? ____
- Q. Available clothing does not protect people in the family from:
1. cold weather ____ 2. wet weather ____
- R. Do the children have separate clothing for: (check X)
1. school? ____ 2. getting dressed up? ____ 3. play? ____

S & T. For amusement the family has:

- S. 1. tv____ 4. magazines____ T. 1. pets____ 4. crayons, pencils, scissors____
 2. radio____ 5. newspapers____ 2. games____
 3. books____ 6. record player____ 3. toys____

U. One or more family members is active in:

1. church affairs____
 2. PTA or other community organizations____
 3. clubs or teams____
 4. unions, civil rights or other social action groups____
 5. other____ What?_____

V. The family usually attends church:

1. more than once a week____
 2. only on special holidays____
 3. once a week____

Care of Older Children

7. Punishment

Kind of punishment:

Person who usually punishes

	M	F	B	S	GM	GF	A	U	Other
A. scolding									
B. spanking									
C. slapping									
D. ignoring child									
E. withholding object or activity child likes									
F. raises voice toward child									
G. threatens with spanking or slap									
H. shakes him									
I. pulls his hair									
J. pinches him									
K. makes fun of him before others									
L. puts him in a place away from others									
M. other									
N. none									
	1	2	3	4	5	6	7	8	9

8. Rewards

Kind of reward:

Person who usually gives reward

	M	F	B	S	GM	GF	A	U	Other
A. praising child									
B. bragging about child									
C. embrace or other affectionate touch									
D. giving some reward									
E. telling child he is loved									
F. told he was good									
G. payed for performance or job									
H. other									
I. none									
	1	2	3	4	5	6	7	8	9

9. Chores and Responsibilities

Kind of chore:	Age of child responsible for chore				
	1-3	4-6	7-11	12-15	16-19
A. care of other children					
B. taking care of your own things					
C. light housework					
D. heavy housework					
E. going to store or other errand					
F. cooking					
G. care of sick person					
H. dress self					
I. feed self					
J. helping with outside work					
K. other					
L. none					
	1	2	3	4	5

10. Supervision of Activities

Child is allowed to or does:	Age of child in activity				
	1-3	4-6	7-11	12-15	16-19
A. play only when adult or teenager is watching					
B. play by himself in another room					
C. play by himself in yard					
D. go around neighborhood by himself					
E. go to town by himself					
F. travel to another town by himself					
G. have his own spending money					
H. have a part-time job					
I. have a full-time job					
	1	2	3	4	5

11. Infant Care (children not yet walking)

A & B. The family uses:

- A. 1. baby bed (crib) _____
2. play pen _____
3. high chair _____
4. infant seat _____
5. carriage _____
6. potty chair _____
7. walker _____

- B. 1. infant toilet seat _____
2. infant toys _____
3. car bed _____
4. stroller _____
5. car seat _____
6. harness _____

C. The baby's illnesses are cared for:

1. immediately _____
2. after a few weeks _____
3. after a few days _____
4. usually not at all _____

D. When the baby cries he is taken care of:

1. immediately _____
2. after half an hour _____
3. after 15 minutes _____
4. whenever somebody feels like it _____

- E. The baby was fed by:
 1. breast _____ how long? _____ wks. 2. bottle _____ how long? _____ wk
- F. The baby was weaned to a cup at _____ months.
- G. Baby was started on solid foods at _____ weeks.
- H. The baby is fed:
 1. whenever he is hungry _____
 2. sometimes when hungry and sometimes on schedule _____
 3. on schedule except when very hungry _____
 4. only on schedule _____
- I. Toilet training began at _____ months. J. Completed at _____ months.
- K. Table training began at _____ months. K. Completed at _____ months.

12. Conditions within the Family

- A. One or more family members have a long-term illness or a disability.
 1. yes _____ 2. no _____
 What? _____
 Who? _____
- B. One or more of the family members is retarded.
 1. yes _____ 2. no _____
 Who? _____
- C. One or more family members has a speech problem such as stuttering or difficulty pronouncing words.
 1. yes _____ 2. no _____
 Who? _____
 Kind of problem _____

The following situations exist in the family:

Nature of the situation	Person (or persons) involved								
	M	F	B	S	GM	GF	A	U	O
D. alcoholism									
E. prostitution									
F. trouble with the law									
G. heavy gambling									
H. other									
	1	2	3	4	5	6	7	8	9

- I. There is continual arguing or fighting:
 1. between adults _____ 3. between children _____
 2. between adults and children _____
- J. Children miss school:
 1. less than once a week _____
 2. once or twice a week _____
 3. most of the time _____

K. Children's illnesses are taken care of.

1. immediately _____
2. after several weeks _____
3. after several days _____
4. usually not at all _____

13. Income:

A. The main source of income for this family is from:

1. chief wage earner _____
2. pension, social security, insurance _____
3. relatives _____
4. family store profits _____
5. welfare _____
6. rent _____
7. family farm _____
8. other _____ What? _____

B. Additional sources of income are from:

1. other wage earners in family _____
2. welfare _____
3. pension, social security, insurance _____
4. relatives _____
5. child support _____
6. rent _____
7. other _____ What? _____

C. The total family income per year is about:

- | | |
|----------------------------|---|
| 1. 0 - \$1,000 _____ | 4. \$2,000 - \$2,500 _____ |
| 2. \$1,000 - \$1,500 _____ | 5. \$3,000 - \$4,000 _____ |
| 3. \$1,500 - \$2,000 _____ | 6. above \$4,000 _____ how much? \$ _____ |

APPENDIX F

A SAMPLING OF REQUESTS FOR PARENT EDUCATION PROJECT MATERIALS

**Day Care Association
Houston, Texas**

**Portland Metropolitan Steering
Committee-EOA (Inc.)
Portland, Oregon**

**Englewood Public Schools
Englewood, Colorado**

**The City of New York
Human Resources Administration
New York, N. Y.**

**Parent-Child Centers
Portland, Oregon**

**Tri-County War on Poverty, Inc.
La Junta, Colorado**

**Cedars-Sinai Medical Center
Los Angeles, California**

**OEO - Parent-Child Centers
Washington, D. C.**

**Pre-school Child & Parent
Education Project
Detroit, Michigan**

**Community Services Section
Oregon State Board of Control
Salem, Oregon**

**Los Angeles City School Districts
Los Angeles, California**

**Peter Maurin Neighborhood House
Oakland, California**

**Park Duvalle Neighborhood
Service Center
Louisville, Kentucky**

**Family Life Education
Minneapolis, Minnesota**

**University of California
Berkeley, California**

**New York University
Washington Square, N.Y., N.Y.**

**Child Development Programs
Chattanooga, Tennessee**

**Washington School of Psychiatry
Study Clinic
Kensington, Maryland**

**School District of Ypsilanti
Ypsilanti, Michigan**

**Day Care Center Program
Oakland Council of Churches
Oakland, California**

**Union College
Character Research Project
Schenectady, New York**

**Northwest Georgia Economic
Opportunity Authority, Inc.
LaFayette, Georgia**

**Children's Hospital of the
District of Columbia
Washington, D. C.**

**Institute of Human Development
The Florida State University
Tallahassee, Florida**

**Boston University Medical Center
Boston, Massachusetts**

**Urban Laboratory in Education
Atlanta, Georgia**

**Orange City School
Orange City, Florida**

**Psychological Clinic
State University of New York
at Buffalo
Buffalo, New York**

**Albert Einstein College of Medicine
Community Mental Health Center
Bronx, New York**

**Hampton Institute
Hampton, Virginia**

**University of Texas
Houston, Texas**